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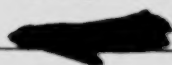


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FIELD MUSEUM OF NATURAL HISTORY.

94 PUBLICATION 186.

REPORT SERIES.

VOL. V, No. I.

# ANNUAL REPORT OF THE DIRECTOR

TO THE

## BOARD OF TRUSTEES

FOR THE YEAR 1915.



CHICAGO, U. S. A.

January, 1916.

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THE LATE NORMAN B. REAM  
An Incorporator and Trustee of the Museum.



FIELD MUSEUM OF NATURAL HISTORY.

PUBLICATION 186.

REPORT SERIES.

VOL. V, No. 1.

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ANNUAL REPORT OF THE  
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S. C. SIMMS, *Curator*.

# ANNUAL REPORT OF THE DIRECTOR.

1915

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To the Trustees of Field Museum of Natural History:

I have the honor to present a report of the operations of the Museum for the year ending December 31, 1915.

Pursuing the announced policy of the Museum, its efforts during the year have continued to concentrate upon the preparation for exhibition in the new Museum building of such material as had been previously acquired. This material is of a character that when properly installed will fit into the general exhibition scheme which has been based fully as much upon material in storage as material in cases. Therefore the progress that has marked the period of this report has been largely due to the labors of the preparators, the taxidermists and the skilled workmen, and no particular effort has been made to acquire new material either by expedition or purchase. Later it is expected that some elimination of early work and imperfect material will take place.

The contract between the South Park Commissioners and the Museum corporation, granting a site for the new building near and south of Twelfth street extended in an easterly direction, was consummated on January 27th. The work upon the new Museum building, actually commenced on July 26th, has progressed with such vigor that the date on which the edifice will be ready for occupation has been considerably advanced. The impetus given to the building operations has had its influence during the past four months upon the scientific staff, and plans for installation, the system of transfer, the arrangements of the halls, offices, laboratories, work rooms, shops, etc., have received much attention on the part of the curators and their assistants. It is not considered necessary, if pertinent, to discuss the progress of the new building in these reports, in as much as the entire work and its responsibilities rests upon and within the Building Committee, but, as items of history in the development of the Museum as a whole, simple record of the work is considered permissible. The Board of Trustees has granted the request of the Chicago Geographic Society for permanent quarters in the new Museum building.

The report of the expert from Graham, Burnham & Company, who examined the present Museum building, indicates that the physical

condition of the structure is safe and stable. A thorough examination of the present building was also made by expert inspectors to examine the fire conditions and the protection and equipment for the prevention and extinguishing of fires, who report that a high degree of precaution is exercised insofar as fire hazard in the building was concerned and that the protection was good and well maintained. Three minor defects in the system were noted and the recommendations to remedy these have been carried out.

A committee of citizens interested in the establishment of an aquarium addressed the Board of Trustees to ascertain to what extent the authorities of the Museum would support the movement and contribute scientific assistance or control of its management. The response of the Board was not only in favor of establishing the aquarium, especially if a location could be obtained in proximity to the new Museum building, but the Trustees declared their willingness and their desire to accept the scientific management of the proposed aquarium.

A review of the acquisitions of the Museum by gift and purchase during the past year will demonstrate the increasing wealth of the Institution. Among the gifts may be mentioned many from the exhibiting countries and individuals at the Panama-Pacific International Exposition. The Museum acquired by purchase some striking and attractive material from the Chinese Government, which had been on exhibition at San Francisco. Other interesting material not costly but unusual and desirable was also purchased. Special mention should be made of the gift of Mr. Fritz von Frantzius, consisting of two Imperial Chinese Jade books and a collection of Japanese coins.

The resignation of Dr. George A. Dorsey, Curator of the Department of Anthropology, after twenty years service with the Institution, created a vacancy which was filled by the appointment of Dr. Berthold Laufer as Curator of the Department. Dr. Laufer was formerly the Associate Curator of Asiatic Ethnology and, during the year Dr. Dorsey was absent in the Orient, assumed the duties of Acting Curator. His extensive and varied experience in scientific research and investigation has specially qualified Dr. Laufer for the position to which he has been appointed. He has conducted expeditions into eastern Siberia for exploration of the ethnology of native tribes and to Tibet and China for culture-historical investigations and ethnological collections; was assistant curator of ethnology at the American Museum of Natural History; lecturer in anthropology and East-Asiatic languages at Columbia University, and is the author of many important books and papers relating to the ethnology, archaeology and philology of the East.

With funds contributed by Mr. Norman W. Harris an attractive and



instructive exhibit of the Harris Public School Extension cases was made at the Panama-Pacific International Exposition. The exhibit excited considerable interest and much favorable comment on the part of visitors at the Exposition and was the means of inaugurating serious consideration of the adoption of this system of education both in foreign countries and in other cities of the United States. The Japanese government asked for type cases for the information of the Imperial Department of Education. The exhibit was awarded a grand prize by the International Jury.

During the year Mr. Chauncey Keep became a Corporate Member of the Museum and was also elected a member of the Board of Trustees to fill a vacancy in the Board.

The following elections of honorary positions in connection with the Institution have been made during the past year. Mr. Fritz von Frantzius and Mr. Henry J. Patten were elected Life Members. Chiefly in recognition for their support and services in affairs of the site for the new building, Mr. Charles L. Hutchinson, Mr. Edward B. Butler, and Mr. Charles H. Markham were elected Patrons of the Museum. Mr. Albert M. Collins of Philadelphia and Mr. Lee Garnett Day of New York were elected Patrons of the Museum in view of the eminent services they have rendered to the Institution.

Mr. Norman B. Ream, who has been a member of the Board of Trustees from its organization, but who during recent years has resided in New York, died on February 9, 1915. The death of Dr. Daniel Giraud Elliot, which occurred on December 22nd, a prominent man in science, who resigned from the staff of the Museum after twelve years of service as Curator of the Department of Zoology, has to be recorded. Prof. Frederick Ward Putnam, formerly professor of American archaeology and ethnology at Harvard University and curator of the Peabody Museum, and a Patron of Field Museum of Natural History since January 31, 1898, died at Cambridge on August 14th. Mr. Robert F. Cummings, an Honorary Member of the Museum, who provided liberal funds for expeditions, for surveys and collections in the Philippine Islands and whose generosity has permitted the Museum to bring together a very extensive and attractive Philippine ethnology exhibit, died on December 31, 1914.

**MAINTENANCE.** — The budget approved by the Board of Trustees provided the sum of \$144,050 for the maintenance of the Museum for the fiscal year. The actual amount expended was \$124,185, leaving a balance within the anticipated expense for the year of approximately \$19,000. In addition to the cost of maintenance sums were expended for collections, new installation and expeditions that brought the total

to \$181,000. As will be observed from the details of the financial statement the sum of \$7,075, representing individual contributions, has also been disbursed for special collections and expeditions.

**PUBLICATIONS.**— Six publications were issued during the year, comprising parts of five volumes, details of which follow:

- Pub. 180.— Anthropological Series. Vol. XIV, No. 1. Traditions of the Tinguian. A Study in Philippine Folk-lore. By Fay-Cooper Cole. 126 pages. Edition 1500.
- Pub. 181.— Report Series, Vol. IV, No. 5. Annual Report of the Director to the Board of Trustees for the year 1914. 78 pages. 16 half-tones. Edition 2500.
- Pub. 182.— Ornithological Series, Vol. I, No. 8. Descriptions of New Birds from South America and Adjacent Islands. By Charles B. Cory. 10 pages. Edition 1500.
- Pub. 183.— Ornithological Series, Vol. I, No. 9. Notes on South American Birds, with Descriptions of New Subspecies. By Charles B. Cory. 33 pages. Edition 1500.
- Pub. 184.— Anthropological Series, Vol. XV, No. 1. The Diamond. A Study in Chinese and Hellenistic Folk-lore. By Berthold Laufer. 75 pages. Edition 1500.
- Pub. 185.— Zoölogical Series, Vol. X, No. 13. New Mammals from Brazil and Peru. By Wilfred H. Osgood. 12 pages. Edition 1500.

#### NAMES ON MAILING LIST

Domestic . . . . .	523
Foreign . . . . .	672
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	1,195

#### DISTRIBUTION OF FOREIGN EXCHANGES

Africa . . . . .	20	Holland . . . . .	20
Australia . . . . .	37	India . . . . .	18
Austria . . . . .	32	Italy . . . . .	36
Belgium . . . . .	18	Japan . . . . .	10
Borneo . . . . .	1	Java . . . . .	4
Bulgaria . . . . .	1	Mexico . . . . .	19
Canada . . . . .	27	Norway . . . . .	8
Central America . . . . .	7	Portugal . . . . .	5
China . . . . .	1	Russia . . . . .	16
Denmark . . . . .	8	South America . . . . .	29
France . . . . .	54	Spain . . . . .	7
Germany . . . . .	134	Sweden . . . . .	14
Great Britain . . . . .	117	Switzerland . . . . .	23
Greece . . . . .	1	West Indies . . . . .	45



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California . . . . .	24	New Mexico . . . . .	3
Colorado . . . . .	10	New York . . . . .	68
Connecticut . . . . .	18	North Carolina . . . . .	6
Delaware . . . . .	2	North Dakota . . . . .	2
District of Columbia . . . . .	39	Ohio . . . . .	19
Florida . . . . .	4	Oklahoma . . . . .	3
Idaho . . . . .	1	Oregon . . . . .	1
Illinois . . . . .	56	Pennsylvania . . . . .	33
Indiana . . . . .	15	Rhode Island . . . . .	4
Iowa . . . . .	15	South Carolina . . . . .	2
Kansas . . . . .	6	South Dakota . . . . .	2
Kentucky . . . . .	3	Tennessee . . . . .	2
Louisiana . . . . .	4	Texas . . . . .	3
Maine . . . . .	7	Utah . . . . .	1
Maryland . . . . .	8	Vermont . . . . .	3
Massachusetts . . . . .	54	Virginia . . . . .	4
Michigan . . . . .	11	Washington . . . . .	6
Minnesota . . . . .	8	West Virginia . . . . .	5
Mississippi . . . . .	2	Wisconsin . . . . .	17
Missouri . . . . .	12	Wyoming . . . . .	2
Montana . . . . .	2	Cuba . . . . .	3
Nebraska . . . . .	6	Hawaii . . . . .	4
Nevada . . . . .	2	Philippine Islands . . . . .	3
		Porto Rico . . . . .	1

THE LIBRARY.—The books and pamphlets accessioned during the year were 3,400, bringing the total number of books and pamphlets in the library to 68,275, which are distributed as follows:

General Library . . . . .	44,221
Department of Anthropology . . . . .	3,293
Department of Botany . . . . .	6,946
Department of Geology . . . . .	9,579
Department of Zoology . . . . .	4,236

Notwithstanding the small number of serial publications received from foreign exchanging institutions, there is a slight increase over the books and pamphlets received during the previous year. Among the gifts of the year is the sumptuous edition of Japanese Temples and Treasures in three illustrated volumes presented by His Imperial Majesty's Commissioner General to the Panama-Pacific International Exposition. The edition is limited to two hundred copies and was especially prepared for the Exposition. Through the Minister of International Affairs, Wellington, New Zealand, a copy of the Illustrated Flora of New Zealand

was received. An almost complete set of its Transactions was presented by the South Australia Royal Society, Adelaide. The Société des Sciences Naturales, La Rochelle, France, presented a complete set to date of its Annales and the Archæological Survey of India eleven of its early Reports to assist in completing the Museum file. Other gifts that have been received are listed elsewhere. The late Dr. Seth E. Meek's ichthyological library, consisting largely of monographic papers and pamphlets, was purchased and from it 2,000 new titles were secured. These have been catalogued and bound. Other important acquisitions by purchase were: The Oxford English Dictionary; Audébert, Histoire Naturelle des Singes et Makis, 1800; Berthelot et Ruelle, Collection des Anciens Alchimistes Grecs; Hobson, Chinese Pottery and Porcelain; sets to date of the Journal of Indian Art Ornithologische Monatsberichte and The Zoologische Annalen.

The number of periodicals received was ninety-nine with twenty-two in subscription sets which have been previously entered. There were bound during the year 564 books, pamphlets and serial publications, and 19,275 cards were written and added to the catalogues. Twelve installments of the John Crerar Library cards have been received and added to its catalogue.

There was an increasing number of students and other visitors who found the library of service in seeking volumes not obtainable in other libraries in the city. A rearrangement of the book cases in the reading room was made during the year that rendered the books more accessible and improved its general appearance.

DEPARTMENTAL CATALOGUING, INVENTORYING, AND LABELING. — The work of cataloguing in the Department of Anthropology during the year is quite notable, 10,062 cards having been written. The cards are distributed over the divisions as follows: 975 North American, chiefly Hopi ethnology; 3,071 Melanesian ethnology; 5,027 New Guinea, collections by Umlauff, Voogdt and Dorsey; 932 Asiatic ethnology; and 57 classical archæology. These cards have been entered in the inventory books of the Department, which now number 38, and the total number of cards recorded beginning from the first volume is 139,516. During the year the Department was supplied with 2,664 printed labels, which have been distributed as follows: 720 Physical Anthropology; 1,250 Mrs. T. B. Blackstone Collection; 52 Models of Chinese Boats; 373 Joseph N. Field Collection; 12 Edward E. Ayer Philippine Guns; 249 Classical Archæology; and 8 objects in the Gem Room. From the section of Photography the Department has received 1,310 prints, which have been duly classified and added to the departmental albums, each print having received a typewritten description. Three albums re-

lating to New Guinea were prepared. A catalogue of lantern-slides was inaugurated by the Department, for which 1,537 cards have been written. The slides have been arranged in the succession of the numbers and placed in cardboard boxes with a label pasted in front, showing the range of the numbers, subject, and locality of the slides. By consulting the card-catalogue it is possible to locate any slide or to ascertain what slides relate to a particular subject, region, or tribe. To meet the demand of the public for information on specimens in the collections and as copies of many labels have been solicited by students, a permanent record of all labels written for the Department has been established. When printing labels intended for installation, copies are made, which are mounted on cardboard, and classified according to the cases in which the specimens are installed. These cards, 620 of which have thus far been prepared, are filed in proper order in cabinets showing identification labels on the outside. A card-catalogue of the exhibition cases, which have all been provided with numbers, has also been inaugurated.

All material received by the Department of Botany during the year has been fully catalogued and distributed, either into installation or classified and placed ready for installation. There were catalogued 19,831 sheets of specimens and 20,305 entries have been made, making the total number of entries 432,791.

Cataloguing of all specimens in the Department of Geology is complete, specimens received during the year being catalogued as received. Of the specimens catalogued 2,860 were palæontological specimens; 286 economic specimens; 102 mineralogical specimens and 118 miscellaneous, making a total of 3,366. Labels prepared numbered 660, of which 309 were printed and distributed. Among the collections which were labeled entire were those of the folklore of gems, Pleistocene fossils, coal tar products, and others of the economic series. Among these were several large, descriptive labels. To the Departmental photograph albums 63 prints have been added, making a total of 2,748 prints now in these albums.

In the Department of Zoology 1,793 entries in the primary catalogue for birds and mammals have been made. The systematic card catalogues have received more than usual revision and additions. The collection of mammals in alcohol, principally bats, has been provided with 617 new labels. 1,524 labels for shells have also been written, of which 1,253 were installed.

The following table shows the work performed on catalogues and the inventorying accomplished:

	No. of Record Books	Total No of entries to Dec. 31, 1915	Entries During 1915	Total No. of Cards Written
Department of Anthropology . . . .	38	141,302	10,062	139,516
Department of Botany . . . .	57	432,791	20,305	65,750
Department of Geology . . . .	21	132,711	3,366	7,705
Department of Zoology . . . .	40	96,830	1,793	33,565
The Library . . . . .	14	100,290	3,400	204,967
Section of Photography . . . .	17	113,303	24,76	.....

**ACCESSIONS.** — The number of accessions in the Department of Anthropology amounted to 31 during the year, of which 27 have been entered. The majority of these were received through the generosity of friends of the Institution. Mr. Edward E. Ayer presented several gifts of scientific importance. These include four brass guns (so-called *lantaka*) captured from the Moro on the Philippine Islands and presumably cast by Chinese in the eighteenth century; a collection of 161 chipped stone (mostly obsidian) projectile points from Upper Lake, Lake County, California, comprising a large variety of types; 19 miniature Pomo baskets from California, of striking technique and variety of form and weave; and an interesting collection of beads and perforated shells discovered in a grave with two skeletons, excavated at Leadbetter Landing, Benton County, Tennessee. A group of 20 tear bottles from Egypt, found in Venice by Mr. Ayer during his travels, was purchased by the Museum. A Roman lamp, unearthed in Transylvania, Hungary, was received as a gift from Mr. William J. Chalmers. The East-Asiatic collections have been enriched by several important gifts. Prominent among these are a complete jade book and a jade seal, both being treasures from imperial possession, presented by Mr. Fritz von Frantzius. The jade book is unique inasmuch as it is complete with the original binding in yellow silk brocade and in perfect condition. It consists of ten rectangular slabs carved from exquisite Khotan nephrite (thirty pounds in weight), and is inscribed with a composition in Chinese and Manchu of the famous Emperor K'ang-hi in 1688; when he canonized his grandmother, the Empress Wen, and conferred upon her a posthumous title. The seal, 6¾ pounds in weight, a masterpiece of carving, as recorded by the inscription, was bestowed upon the Empress Jui on February 12, 1796, the day when she was officially appointed Empress of China. A description of these memorable objects has been published in the June number of the *Fine Arts Journal*. Mr. von Frantzius has likewise donated a very instructive collection of Japanese coins and paper money, numbering about 800 specimens, brought together by order of the Japanese Government, and a fine Chinese gold ring decorated with designs in relief. To Dr. Frank W. Gunsaulus the Museum is in-



debted for a very remarkable Chinese rosary of a hundred beads carved from exquisite dark-red Burmese amber, and in all probability manufactured in the imperial atelier. An interesting collection of Pompeian antiquities was purchased by the Museum. It represents a valuable addition to the Pompeian material and very well illustrates the agricultural phase and every-day life of the people in southern Italy toward the end of the first century. A Persian chain mail, acquired in Tiflis, was secured by purchase. The most important purchase of the year is represented by the models of Chinese pagodas and the wood-carved gateway made by the Orphan School of the celebrated Jesuit institution in Sikkawai near Shanghai and secured at the Panama-Pacific Exposition of San Francisco. The purchase of a small collection of incised pottery dug from shell-heaps in Walton County, Florida, is a welcome addition to the small quantity of material possessed by the Museum from this region. With funds provided by Mr. Homer E. Sargent, Mr. Cyrus H. McCormick and Mr. Martin A. Ryerson, a collection consisting of approximately one thousand objects, illustrating textiles, costume, jewelry, brass and bidri ware, religious images, and ivory carving, was secured by Dr. George A. Dorsey in India. This collection also includes an interesting series of miniature painting and notable old wood-carvings originating from a Jaina temple. Altogether it denotes a hopeful beginning in the direction of a collection representative of the high civilization of India and augurs well for the large opportunities offered in this immense field in which work on extensive lines may well be continued.

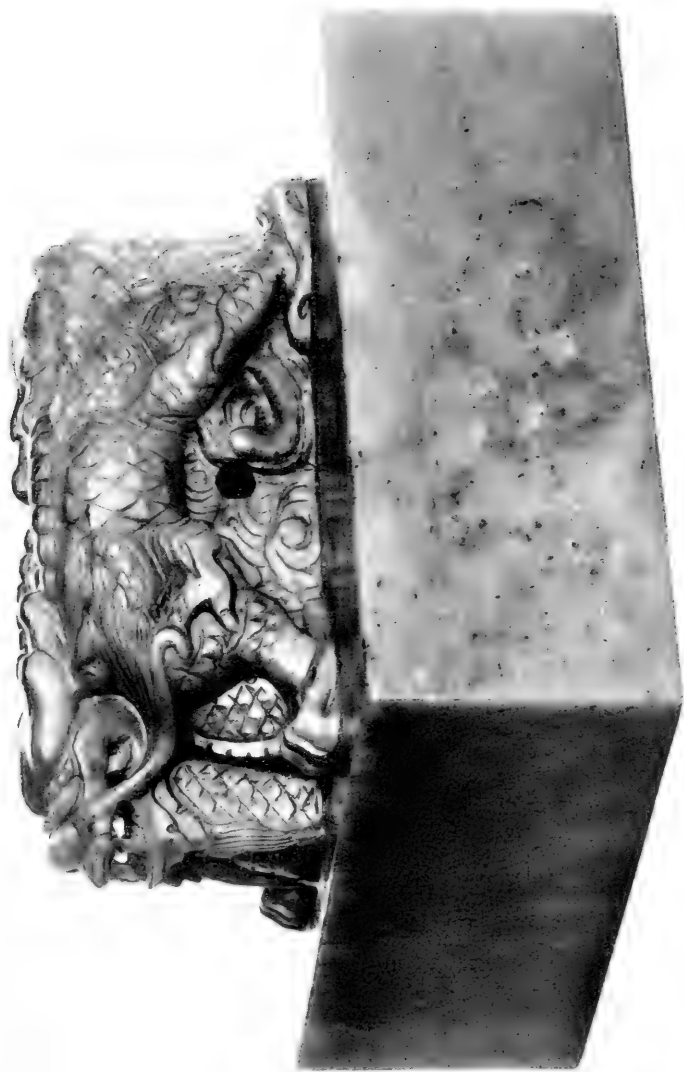
There were added to the Department of Botany during the year 19,831 sheets of herbarium specimens, comprising in part the following interesting and valuable series: Baker & Huber, Brazil 60; Botanical Garden, Natal 101; Botanical Garden, Sidney 99; Buchtien, Bolivia 200; Clokey, Illinois 145; Cowles, British Columbia 164; Alaska 468; Alberta 81, Saskatchewan 72, and Washington 491; Dusener, Illinois 292, Indiana 320; Elmer, Philippine Islands 865; Fendler, New Mexico 167; Gates, Philippine Islands 397; Gaumer, Yucatan 212; Heller, California 1044; Holm, Porto Rico 149; Johnson, Wisconsin 118; Lansing, Illinois 47, Indiana 128; Lindheimer, Texas 66; Meyer, Asia 47; Moodie, Alberta 195; Millspaugh, Wisconsin 84; Palmer, Mexico 381; Payson, Colorado 260; Philippine Bureau of Sciences 1367; Purpus, Mexico 227; Reynolds, Illinois 65, Wyoming 155, Yellowstone Park 75, Washington 151; Sherff, Illinois 214, Photographs of Bidens and Cosmos 671; Huron H. Smith, Oregon 53; Standley, New Mexico 176; U. S. Department of Agriculture, Gramineae 201; Wenzel, Philippine Islands 841; and Wright, New Mexico 182. In addition to the above, the organiza-

tion of the private herbaria purchased by the Museum was completed, and the specimens incorporated in the general herbarium. Of the 13,166 sheets so incorporated the following are notable: Baker, Colorado 534; Camp, Michigan and Ohio 549; Eggleston, Vermont 497; Fitzpatrick, Iowa 443; Graut, Vermont 388; Heller, California 998; Idaho 447; Pennsylvania 496; Sandwich Islands 938; Kearney, New Jersey and Tennessee 375; McDonald, Illinois 405; Mackenzie, Kansas and Missouri 308; Morris, Connecticut to Virginia 464; Nelson, Wyoming 442; Piper, Washington 268; Sandberg, Minnesota 248; Sheldon, Minnesota 204; Small, Virginia 224; Umbach, Illinois and Indiana 533; and Watson, Ohio 152. The private herbaria now incorporated with that of the Museum are the following:

Bebb, M. S., <i>Salix</i> and general . . . . .	31,583
Heller, A. A., General . . . . .	13,166
Hitchcock, A. S., Floridian . . . . .	7,188
Millsbaugh, C. F., <i>Euphorbia</i> and general . . . . .	5,006
Patterson, H. N., General . . . . .	37,887
Rothrock, J. T., General . . . . .	22,901
Small, J. K., South U. S. and general . . . . .	19,381
Schott, A., Yucatan and general . . . . .	8,447
Schuette, J. H., Wisconsin and general . . . . .	10,990
University of Chicago, General . . . . .	44,104
Wahlstedt, J. H., <i>Epilobium</i> , <i>Viola</i> , <i>Chara</i> and general . . . . .	17,555

The additions to the organized herbarium during the year, geographically arranged, are as follows: (The tabulation does not include regions from which no additions have been received this year).

LOCALITY	Added to Herbarium 1915	Total now in Herbarium
ALASKA . . . . .	473	1,162
CANADA:		
Alberta . . . . .	277	828
British Columbia . . . . .	165	1,182
Manitoba . . . . .	1	259
New Brunswick . . . . .	4	181
Saskatchewan . . . . .	73	439
UNITED STATES:		
Alabama . . . . .	127	1,464
Arizona . . . . .	74	9,522
California . . . . .	1,151	35,091
Carolina, North . . . . .	213	4,787
Carolina, South . . . . .	7	1,042
Colorado . . . . .	346	12,133
Connecticut . . . . .	24	579
Dakota, North . . . . .	4	564
Dakota, South . . . . .	83	1,176



IMPERIAL CHINESE JADE SEAL CONFERRED UPON THE EMPRESS JUI ON FEBRUARY 12, 1796.

Gift of Fritz von Frantzius.

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LOCALITY	Added to Herbarium 1915	Total now in Herbarium
<b>UNITED STATES:</b>		
Delaware . . . . .	1	1,594
District of Columbia . . . . .	150	2,523
Florida . . . . .	19	20,735
Florida Keys, General . . . . .	1	682
Big Pine Key . . . . .	1	3
Coon Key . . . . .	1	1
Georgia . . . . .	4	4,566
Idaho . . . . .	219	3,479
Illinois . . . . .	1,109	22,161
Indiana . . . . .	760	6,668
Indian Territory . . . . .	25	312
Iowa . . . . .	39	1,801
Kansas . . . . .	45	551
Kentucky . . . . .	4	972
Louisiana . . . . .	53	1,349
Maryland . . . . .	118	1,225
Massachusetts . . . . .	220	3,404
Michigan . . . . .	173	4,176
Minnesota . . . . .	812	2,411
Mississippi . . . . .	1	2,079
Missouri . . . . .	360	3,380
Montana . . . . .	22	4,030
Nebraska . . . . .	6	420
Nevada . . . . .	17	1,273
New Hampshire . . . . .	56	1,542
New Jersey . . . . .	56	3,011
New Mexico . . . . .	630	3,591
New York . . . . .	296	6,353
Ohio . . . . .	250	2,080
Oklahoma . . . . .	3	294
Oregon . . . . .	69	7,503
Pennsylvania . . . . .	653	11,514
Rocky Mountains (General) . . . . .	4	1,399
Tennessee . . . . .	105	1,562
Texas . . . . .	93	9,857
Utah . . . . .	3	2,535
Vermont . . . . .	1,014	3,689
Virginia . . . . .	594	5,297
Washington . . . . .	314	7,756
San Juan Island . . . . .	151	151
Brown Island . . . . .	1	11
West Virginia . . . . .	7	2,010
Wisconsin . . . . .	237	4,900
Wyoming . . . . .	622	1,552
Yellowstone Park . . . . .	75	528
<b>CENTRAL AMERICA:</b>		
Costa Rica . . . . .	5	616
Guatemala . . . . .	5	2,891

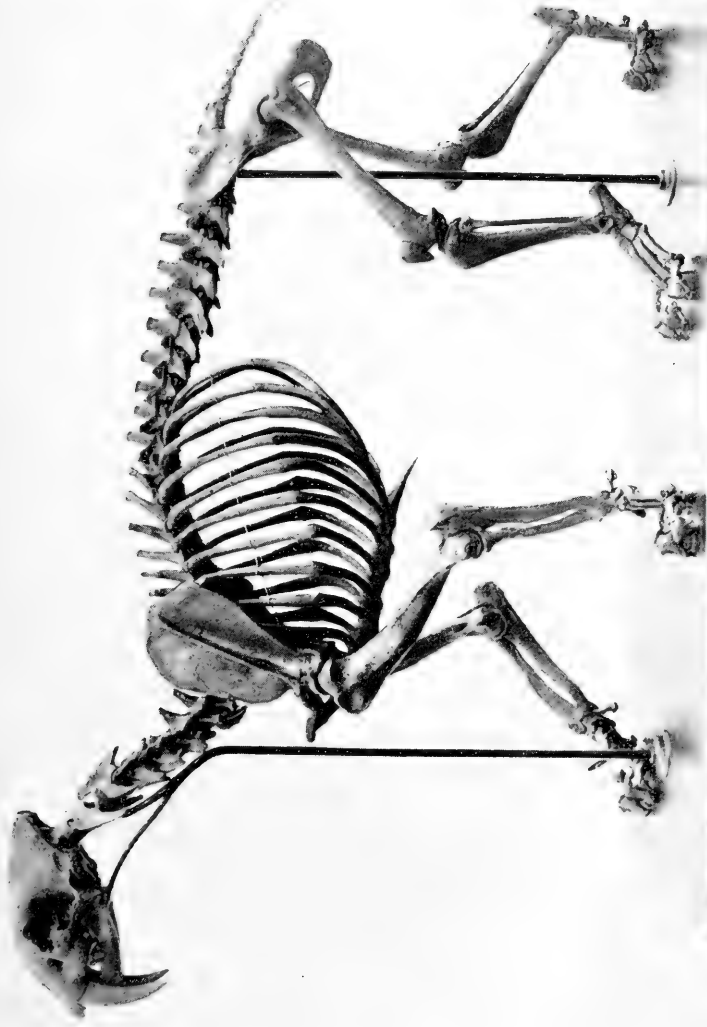
LOCALITY	Added to Herbarium 1913	Total now in Herbarium
<b>CENTRAL AMERICA:</b>		
Mexico . . . . .	864	36,602
Lower California . . . . .	18	1,681
Yucatan . . . . .	212	4,903
<b>PANAMA:</b>		
Canal Zone . . . . .	12	65
Taboga Island . . . . .	1	1
San Salvador . . . . .	1	25
<b>WEST INDIES:</b>		
Bahamas:		
New Providence . . . . .	1	2,423
Barbados . . . . .	3	340
Cuba . . . . .	5	9,783
Isle of Pines . . . . .	2	655
Guadeloupe . . . . .	1	1,035
Hayti . . . . .	4	309
Jamaica . . . . .	12	7,400
Martinique . . . . .	1	617
Puerto Rico . . . . .	167	4,753
San Jan, Little . . . . .	1	8
Santo Domingo . . . . .	2	1,381
Santa Lucia . . . . .	1	2
Sombrero Island . . . . .	1	1
<b>SOUTH AMERICA:</b>		
Bolivia . . . . .	201	3,917
Brazil . . . . .	60	573
Tobago . . . . .	2	572
Trinidad . . . . .	7	489
Venezuela . . . . .	3	1,067
<b>EUROPE:</b>		
Austro-Hungary . . . . .	316	7,383
England . . . . .	1	682
<b>ASIA:</b>		
Borneo . . . . .	2	10
China . . . . .	46	370
Philippine Islands . . . . .	3,467	9,909
Siberia . . . . .	1	431
<b>AFRICA:</b>		
South Africa . . . . .	34	1,293
Basutoland . . . . .	3	3
Natal . . . . .	44	794
Zululand . . . . .	15	175
<b>OCEANIA:</b>		
<b>AUSTRALIA:</b>		
New South Wales . . . . .	85	611
Queensland . . . . .	6	24
West Australia . . . . .	7	141
Guam . . . . .	1	2
Fiji Islands . . . . .	1	2

LOCALITY	Added to Herbarium 1915	Total now in Herbarium
OCEANIA:		
Samoa . . . . .	1	63
Sandwich Islands, general . . . . .	..	484
Maui . . . . .	1	1
Kauai . . . . .	449	449
Oahu . . . . .	541	541
Horticultural . . . . .	21	2,671
Illustrations mounted as Herbarium sheets . . . . .	678	1,923

The most important accession in the Department of Geology was the gift of a large quantity of specimens of the fossil skeletons found in the asphalt beds of Los Angeles, California. This large collection was presented through the kindness of Mr. Edward E. Ayer, Mr. E. B. Butler, Mr. W. R. Linn, and Mr. Martin A. Ryerson. Among the important features of the collection was a complete mounted skeleton of the sabre-tooth tiger. This forms a striking and valuable addition to the series of fossils. An additional skeleton of this tiger, incomplete but mountable, was also included in the collection. An incomplete but mountable skeleton of the fossil wolf of the Los Angeles locality and in addition six good skulls and twelve lower jaws of the animal were also received. The large, extinct sloth found at this locality was represented by a skull nearly two feet in length, also by teeth and parts of lower jaws and some of the peculiar leg bones and claws of the animal. These will furnish a mounted limb. A large fossil lion of the locality, about twice as large as the largest African lion, is represented by several bones; a large camel, one-half larger than the largest modern camel, is represented by vertebrae and some other bones; and the native horse is represented by leg bones and teeth. There are also contained in the collection parts of four bird skulls, leg bones and claws, and probably one mountable foot. Some of these bones show birds of unusually large size. Bones of the mammoth and bison, the latter including one good bison skull, were also comprised in the collection. In addition a large quantity of miscellaneous bones of various species was included which will be valuable for purposes of comparison and possibly for completing skeletons. Two meteoric stones of the fall which occurred at Blanket, Texas, May 30, 1909, were presented through the kindness of Mr. Stanley Field and Mr. Arthur B. Jones. These stones represent all the known material of this fall and make a valuable addition to the meteorite collection. About 60 specimens of minerals and ores were presented by Mr. W. J. Chalmers. This series included a number of specimens of gold ores showing free gold, specimens of native silver, agate, turquoise and other valuable minerals. Fifteen specimens of jasper and moss agate, presented by Mr. J. H. Mosher of

Glendive, Montana, and several additional specimens of moss agate showing remarkable imitative landscape effects, loaned by him, furnish excellent specimens of a remarkable occurrence of this mineral. Mr. Fred Pattee contributed a number of specimens of ores and industrial minerals from various western localities. These gifts included ores of copper and vanadium, also specimens of phosphates, asbestos and barite. An interesting series of copper ores showing stages of replacement of hornblende by copper minerals was presented by Dr. F. C. Nicholas, also a valuable specimen of tungsten ore. A striking and valuable specimen of gold ore from the Smuggler-Union mine, Colorado, was presented by Mr. T. S. Chalmers. The India Geological Survey presented several specimens of Indian laterite, thus securing a representation of this peculiar mineral which had not hitherto been possessed. The representation of the Los Angeles fossil fauna was increased by the gift of 532 specimens by Dr. William Bebb. These specimens included several hundred bones of *Smilodon*, a large number of bones of the fossil wolf and some of the fossil horse, sloth and bison. The Colorado-Yule Marble Company presented six full-sized slabs showing the varieties of marble obtained at its quarries. The collection of fuller's earths and barites which had hitherto been quite incomplete, was increased by the gift of specimens from several firms producing these substances. Of these, fuller's earths were presented by the Manatee Fuller's Earth Corporation, the Floridin Company, J. E. and R. M. Farnsworth and the Lester Clay Company; and barite was presented by the Cherokee Chemical Company, Durex Chemical Works, Krebs Pigment and Chemical Company, and Thompson, Weinman and Company. Mr. H. R. Wood, the producer, presented four specimens of tungsten ore from Arizona, and C. K. Williams and Company three specimens of crude and ground talc. Nine specimens of iron ore from the unusual deposits that occur at Mayville, Wisconsin, were presented by Mr. E. S. O'Connor. Mr. Max Ziege presented 33 specimens of ores from the Ruby Mountain District, Nevada, which included copper, antimony and silver ores and accompanying rocks. Exchanges made with several individuals and institutions resulted in adding desirable material. The most important accession received in this way was obtained from the Deseret Museum, Salt Lake City, Utah, and consisted of fifteen specimens of the products of the Great Salt Lake, Utah, and fifteen brilliant and rare specimens of crystallized pyrite and tetrahedrite from Bingham, Utah. The Salt Lake products included brines, calcareous oölite, mirabilite and various forms of common salt, all obtained from the waters of the lake. A slab of the Big Skookum meteorite was obtained by partial exchange with





SKELETON OF FOSSIL SABER-TOOTH TIGER (*SMILODON CALIFORNICUS*). LOS ANGELES ASPHALT BEDS,  
LOS ANGELES, CALIFORNIA.

Gift of Messrs. E. E. Ayer, E. B. Butler, W. R. Linn, and M. A. Ryerson.

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the Foote Mineral Company. From Mr. H. B. Derr were obtained 37 specimens of analyzed soils, besides limestones and clays from various localities in Missouri. From Mr. William Foshag were obtained by exchange eight specimens of rare California minerals, and from Mr. E. G. Norton three specimens of crystallized calaverite from Cripple Creek, Colorado. The principal accession by purchase was a number of specimens of the rare Carboniferous crinoid *Phalocrinus*, which had not previously been represented in the collections. Specimens of tracks of a Carboniferous batrachian were included in the same accession.

In the Department of Zoology the number of accessions during the year were as follows: Birds 143; mammals 16; fishes 276; insects 923; and shells 432. Of these, 125 of the birds were an important purchase of Dutch Guiana birds from Mr. Penard; 152 Nicaraguan butterflies were obtained from Senor Dion. Chaves of Managua; 24 species of sphinx moths were presented to the Museum by Mr. B. Preston Clark of Boston, these with one or two exceptions being new to the Museum collection and some of them very rare; also 116 Bolivian insects secured by the Collins and Day expedition to South America. There was obtained by purchase a very interesting abnormal form of *Heliconius doris viridis*. Of the 276 fishes added to the collection 265 were the gift of Dr. C. Eigenmann and were desirable acquisitions. Of the 432 shells received, 255 from southwestern United States were the gift of Mr. R. C. Orcutt; 52 specimens from the Museum's South American Expedition, and 117 from the Joseph N. Field South Sea Islands Expedition.

EXPEDITIONS AND FIELD WORK.—Dr. George A. Dorsey, to whom leave of absence had been granted for a visit to the Orient, availed himself of the opportunity of his sojourn in India to acquire an ethnological collection for the Museum with funds provided through the generosity of Mr. Homer E. Sargent, Mr. Cyrus H. McCormick and Mr. Martin A. Ryerson. A description of the collection appears elsewhere in this report.

The discontinuance of the regular zoological expedition to South America was compensated for by participation in an expedition known as the Collins-Day South American Expedition, organized and financed by Mr. Alfred M. Collins of Philadelphia and Mr. Lee Garnett Day of New York City. This expedition included besides Mr. Collins and Mr. Day and their associate, Mr. W. T. Walker, two zoological collectors, one, Mr. R. H. Becker, representing the Museum, and the other, Mr. G. K. Cherrie, representing the American Museum of Natural History of New York. The entire expenses and salaries of the collectors were generously defrayed by Mr. Collins and Mr. Day and every opportunity was afforded for work with the result that, despite a

rainy season and a limited amount of time, some 1,300 specimens of birds and mammals were secured. By special agreement these will be divided equally between the two Museums. The expedition sailed from New York December 26, 1914, and proceeded via Panama to Mollendo, Peru. From there a short trip was made to the highlands near Lake Titicaca and specimens were obtained of the larger mammals of the region, especially the guanaco or wild llama, and the vicuña. It is of great interest to note, as illustrating the scant means available for studying South American animals, that these vicuñas were the first to be brought to a North American Museum, notwithstanding the fact that the species is of relatively large size and of great economic importance. The expedition continued through the Andes to Cochabamba, Bolivia. From Cochabamba it was decided to descend to the Madeira River and the Amazon by way of the Chapare and Mamore rivers instead of by the more frequented route via the Beni River. The difficult journey was made with a train of twenty-four pack mules at considerable expense of time, money and personal hardship. The remainder of the trip was by canoe and small steamer to the Madeira-Mamore railroad by which the rapids of the Madeira were passed and thence to the Amazon at Manaus where steamships of good size were available. The collection of mammals secured by the expedition has not yet been studied and the specimens of birds, which will ultimately come to this Museum, have not been received. In September and October, Taxidermist Friesser made a successful expedition to the Olympic Mountains of the State of Washington, where, through the courtesy of state officials, he was permitted to obtain fine specimens of the Olympic or Roosevelt Elk. These and the accessory material secured at the same time will be used for a large group of these animals, which has long been planned and for which a striking background has already been painted.

The following is a list of the expeditions:

Locality	Collector	Material
British India.	Geo. A. Dorsey.	Ethnology.
Olympic Mountains.	J. Friesser.	Mammals.
Peru, Bolivia and N. Brazil.	R. H. Becker	Mammals and Birds.

INSTALLATION, REARRANGEMENT, AND PERMANENT IMPROVEMENT. — The work and efficiency of the Department of Anthropology in matters of installation have been fully maintained during the year. A total of 68 new cases have been placed on permanent exhibition, many of these being completely labeled. The material installed in these cases is distributed as follows: Classical archaeology 6 cases; Hopi ethnology 10 cases; Tibetan ethnology 18 cases; Chinese ethnology 8 cases; Chinese archæ-

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FIGURE 10. WOMAN FROM BETHLEHEM, PALESTINE. FRONT AND BACK.

ology 11 cases; Japanese ethnology 1 case; New Caledonian ethnology 8 cases; Philippine ethnology 1 case; and Solomon Islands ethnology 5 cases. The 31 cases on the gallery relating to physical anthropology were relabeled and reinstalled; work on the cataloguing of the main collections in physical anthropology has likewise been commenced. Hall 49 has been installed with exhibits of the Mrs. T. B. Blackstone Expedition to Tibet. One group of the displays illustrates the life of the nomadic tribes of eastern Tibet, their saddlery and other means of transportation, utilization of skins, leather, and yak-hair weavings. A large coracle, the only type of boat used in Tibet, is a notable feature in these exhibits. For comparative study, Chinese saddlery is likewise shown in this section on the dummy of a horse, which is equipped with full harness. Another group of Tibetan exhibits, consisting of 7 cases, illustrates the manufacture of textiles, the process of weaving being shown by several looms, as well as the style and wear of costume. Sixteen life-size figures have been prepared with much care for faithfulness of all characteristic features. They are completely dressed in native style, even as regards the hair and hair-dressing procured in Tibet, and are thoroughly representative of the manifold tribes of central, eastern, and northeastern Tibet. A model of a woman from central Tibet is shown in festive attire complete with all jewelry. Special emphasis is laid upon the difference between the pastoral and sedentary or agricultural tribes, and upon the influence exerted upon Tibetan culture by China. In addition to the costumed figures, nine articles of clothing are exhibited on dummies, also many specimens of woollen and hempen fabrics. Jewelry from Tibet and China, formerly deposited in Higinbotham Hall, is now installed in three standard cases on slanting shelves covered with black velvet. The installation is well provided with photographs depicting the wearing of the jewelry. This installation presented technical difficulties of great complexity, all of which have been overcome. In December the three jewelry cases, also one from Hall 54, were moved to alcoves 121 and 122, North Court. Two cases containing Tibetan religious paintings were installed in Hall 49. The Chinese bronzes temporarily placed in the North Court were transferred to the East Annex and permanently installed in standard cases. They now occupy altogether eleven cases, and are arranged in strictly chronological order. In consequence of this addition, a reorganization of the Chinese Halls became necessary. The paintings were removed from Hall 43 and 44 to Hall 47 and replaced by nine cases of bronze. For technical reasons two cases of bronze have to remain in Hall 49. The interesting and instructive models of boats and palanquins, acquired at the World's Columbian Exposition, were permanently

installed in two standard cases placed in Hall 53, each model being provided with a descriptive label. The imperial jade book and jade seal presented by Mr. von Frantzius are temporarily installed in Hall 45, in such a manner that they can be freely viewed from all sides. The two detached jade tablets purchased a year ago were added to these exhibits. A special case was constructed for the large brass temple-lamp from India, secured during the time of the Columbian Exposition. The Japanese tapestry, formerly in Hall 31, was moved to Hall 56 into its appropriate surroundings. Mr. Ayer's gift of four Moro guns necessitated the reinstallation of two cases containing Moro armor. The New Caledonian collection, installed in eight cases by Assistant Curator Lewis, is especially interesting for its rare old masks and fine assortment of weapons, notably the stone-headed clubs, one of which is said to be the largest in existence, and was the property of one of the famous chiefs in New Caledonia. Other objects of significance are the house-posts and ornaments, native money, and the old-style clothing and ornaments, especially the green-stone necklaces representing the most highly prized treasures of a New-Caledonian woman. Five cases containing material from the Solomon Islands were also installed. The installation of the Stanley McCormick Hopi Collections has progressed satisfactorily, ten cases having been completed. Five of these cases comprise 150 masks and head-dresses, shown upon freshly painted plaster busts, in their proper groupings and sequence. Three cases are filled with modern domestic pottery, two of unpainted, one of painted ware, in their groupings, as recognized by the Hopi themselves. The series of fifty objects showing the manufacture of pottery is very complete and instructive. One case includes rattles of every type, in fact, all musical instruments used by the Hopi, except drums. In another case are displayed the rabbit sticks, raw skins, and the rabbit-skin robes which are purely woman's work, no man being allowed to be present during their making. In the North Court, three cases have been installed; namely one of Etruscan *Bucchero* ware variously decorated, another of vessels with red designs on black ground. The third is occupied by bronzes which include the two *cistas* purchased last year, all being obtained through the efforts of Mr. Ayer. These cases, newly installed, necessitated some rearrangement in which the two candelabra cases and one of bronze pails were moved to the east line of cases in the Court where the three cases of Irish art-work have stood for years. These had been placed previously in alcoves 121 and 122. Minor transfers of material have also been made in this Court. The two cases containing antique glass in the North Court have been reinstalled upon a new principle of open shelving



which fully exhibits the beauty of form, wonderful colors, and iridescence of these specimens. The Pompeiian collection secured by the Director in San Francisco is temporarily installed in a hanging wall-case in alcove 121, North Court, and is completely labeled. When alcove 120 was vacated to make room for exhibits of the N. W. Harris Public School Extension, the Roman mills, braziers, and other objects were rearranged in the Court as best as its crowded condition would permit. A portion of the ethnological material obtained by Dr. Dorsey in India through the liberality of Messrs. Homer E. Sargent, Cyrus H. McCormick, and Martin A. Ryerson, has been placed temporarily in two wall cases in alcove 122. In H. N. Higinbotham Hall there have been some changes in installation as well as rearrangement. Hanging-cases 21 and 22, on the South Wall, were stripped of Algerian jewelry, and in its stead was placed the Turkish, Armenian, Syrian, and Arabian jewelry, formerly in case 17, along with the Bulgarian jewelry from case 19. In the vacated space in case 19 were temporarily placed Tibetan charm-boxes and earrings. Tibetan jewelry, consisting of rings, bracelets, and hairpins, was also transferred from case 20 to case 19. The Algerian jewelry from cases 21 and 22, along with a more recent accession of the same material, was installed in the new case on the East Wall of the hall. Some Colombian gold objects were taken from the floor of case 24 and placed upon the floor of case 23. When the Tibetan jewelry was removed from cases 19 and 20 for permanent installation in Hall 49, a reinstallation of case 20 was made necessary. This installation brought about some rearrangement of cases, Nos. 17 and 18 being moved from the East Wall to the North Wall, bringing all the jewelry from India into a single group. Case 23 and a new case were moved into vacated space upon the East Wall. Since Hall 48, East Annex, utilized for several years past as a work-room, was needed for the further exhibition of the Mrs. T. B. Blackstone collections, the north end of Hall 71 was cleared of all ethnological material stored there and equipped as a work-room, being in close proximity to the vast Pacific Island collections yet to be installed and stored in the West Annex, there to await removal into the new building. To better condense the ethnological material in the south end of Hall 71, the Volk collection and other material intended for exchange, as well as the large model of the Ruins of Mitla, Mexico, have been placed in Hall 68, now to be utilized for general storage. Six cases, heavily loaded with storage material, were taken from Hall 71 and placed in Hall 72 for early installation. The two cases of stored Australian material now stand in Hall 80, having been moved there from Hall 72. The drums, previously stored in Halls 79 and 80, having been shifted to Hall 68; those

two halls, with cases placed to the best advantage, will afford parking for fifty cases of the Joseph N. Field Melanesian Collections to be installed. Preservation of material, photographing, and rearrangement have necessitated work in one hundred cases of the Department during the year. Hall 48 in the East Annex was originally intended to serve as a gallery of Chinese painting. In view of the new material expected soon from San Francisco, however, this plan has been abandoned, and the hall will be reserved for the reception of the pagodas and other new acquisitions. The former plaster-room has been divided by a partition-wall into two rooms.

The Department of Botany has installed 39 new case-units in the public exhibition series, while 17 others have been reinstalled and augmented with new and interesting material. Of these cases 15 were added to the Systematic Economic Series; 37 to the North American Forestry Series; and 4 to General Dendrology. To the North American Forestry Series monographs of the following trees were added: Red or Pencil Cedar, Mountain Pine, Pitch Pine, Chestnut Oak, Yellow Locust, Honey Locust, Cork Elm, Red Spruce, Red Ash, Butternut, Chestnut, Hop-Hornbeam, Fraser's Umbrella Tree, Cucumber Tree, Beech, Sourwood, Yellow Poplar, Pennsylvania Cherry, Fraser's Fir, Sweet Buckeye, Black Willow, Sweet Birch and Yellow Birch. To the Dendrologic Series was added a display, in four cases, of the woods of the Hawaiian Islands, representing, with fair sized specimens, the trees of the islands as described in the new work of Mr. Joseph F. Rock. To the Systematic Economic Series a case was added displaying the fruits, gums, and tan and dye barks belonging to the Combretum and Mangrove families; one with similar products derived from the Combretum and Spikenard families; two cases devoted to the derivatives of the Birch family; one to those of the Willow, Myrtle and Walnut families; two to the Walnut family alone; one additional to the Oak family; one to the Sapodilla family and one each to the Spurge and the Daisy families. On account of lack of cases and cramped quarters in the rooms devoted to the working herbarium, it became necessary to entirely reorganize the collections during the year. In order that the material most frequently consulted might be readily accessible the Eurasian and African material was removed from the organized herbarium and placed in a series of metal storage cans racked in the mounting room on the first gallery; and the West Indian, Central and South American specimens rearranged in like storage cans racked above the regular herbarium cases. This divides, temporarily, the organized reference collection into three parts. In all three the plants are fully arranged in the order of modern classification. While not so conveniently referable



MODEL OF A GOLD MINE.  $X\frac{1}{2}$ .



as when all like material is together, yet the collections are consistently available, until such time as they can be reassembled in the herbarium hall of the new Museum building.

In the Department of Geology a complete readjustment of the cases in Skiff Hall was made in order to give better lighting and grouping. Formerly the low cases had been arranged on one side of the hall and the high cases on the other, but as the amount of light obtained by this method of arrangement was insufficient, the cases have now been arranged so as to form a series of alcoves with the taller cases forming the sides of the alcoves and the lower ones occupying the center. The lighting by this arrangement is much more satisfactory. Six of these alcoves were placed on each side of the main passageway through the hall, the forming of these alcoves having required the readjustment of 56 cases. From most of these cases it was also necessary to entirely remove the specimens and reinstall them. In this connection the opportunity was improved to perfect the order of the specimens so as to bring related groups as close together as possible. The exterior woodwork of the cases was also entirely refinished. Space was found in the cases for several new series, among them being a series of bonanza silver ores from Mexico and a collection illustrating the nature and origin of certain "porphyry coppers." To the rare earths collection a radiograph was added made by exposing a lead object to the emanations from carnotite. This was installed with other radium ores as a means of showing the best method of detecting such ores. A portion of the collection of gold ores was removed to make room for a model of a gold mine constructed by the Assistant Curator. This model represents methods of working a small gold mine of medium richness in a vertical quartz vein six feet wide. The background and above-ground scenery were prepared from studies of Arizona landscapes from photographs made by the Curator. The model occupies a space of four by three feet with a depth of about six inches. It illustrates a mine worked by levels connected by a shaft. The ore is represented as a vein of quartz containing minute particles of free gold. At one side the vein is represented as intersected by another running from the front to the back of the model. The ground about this vein is supposed to be looser than at the side and a different method of timbering is illustrated. To illustrate the methods of removing the ore several stopes are shown as well as raises and winzes. Various features of mining equipment are also represented such as head frames, shaft house, tramways, ore cars, pump, etc. The scale of the model is five feet to the inch, and pains were taken to have it represent different features of a well managed mine as far as possible. In all parts of the economic collections

there has been a constant addition of new material in the form of single specimens or small groups. Room for these has for the most part been obtained by withdrawing older specimens from exhibition. Space for increase in the number of rare earths and tungsten ores was obtained by withdrawing a portion of the antimony collection from exhibition. A collection of rocks from German coal fields which was properly a part of the coal collections not now on exhibition was withdrawn and the space gained utilized for the display of three new collections more in harmony with adjacent exhibits. One of these is a collection of fuller's earths from the most important American localities; another is a series illustrating the raw materials, intermediate and final products of Portland cement; and the third collection is one giving a synopsis of the uses of quartz and quartz sands. In this collection numerous specimens show the more common occurrences of quartz; then the grades of quartz used for the more valuable products, such as prisms, lenses and blown quartz utensils; and a third section shows specimens of the poorer qualities of quartz used for more ordinary purposes and sands suited to many special uses. These collections were installed in Hall 35. By reinstallation and some crowding of specimens a much enlarged collection of barite has been accommodated in the space formerly devoted to fewer specimens of this mineral. To the collection illustrating products of coal tar, some of the better known medicinal substances made from it such as phenacitin and acetanilide have been added. In Higinbotham Hall all the specimens were removed from the four central gem cases, the cases lined with new white silk and the specimens reinstalled. This work was necessitated by the fact that the old linings had become worn and faded. New linings were also provided for the upper parts of these cases and shelves of finished glass supported by glass pillars were put in place of the rough shelves swinging on chains which had hitherto been used. A new series of moss agates and jaspers was installed and some other minor changes were made. In Alcove 105, leading to Higinbotham Hall, the collection numbering 163 specimens illustrating the varieties and occurrence of amber which was obtained last year was installed. This collection illustrates different forms and colors of crude amber, forms and colors of pressed amber or ambroid, carvings in amber, fossils found in amber, distillation products of amber, etc. The collection was installed on a series of glass shelves, each specimen being secured to an individual mahogany stand. In front of each specimen was placed a label secured by an individual clip. To the exhibition series of systematic minerals about fifty specimens of recent accessions were added. The series of Salt Lake products was

installed in a case with other salts in Hall 31. The fossil Carboniferous tree from Michigan obtained from the St. Louis Exposition was installed in Hall 33 in connection with other fossils from this period. The series of Carboniferous crinoids and batrachians acquired during the year was similarly installed. The work of mounting the invertebrate fossils upon tablets suitable for installation in floor cases was carried on during the year as opportunity permitted and about 300 specimens were so prepared. Practically all the Pleistocene invertebrate fossils have now been mounted in this way and some other series have been completed. The Pleistocene fossils prepared were installed temporarily in a case in Hall 33. Specimens chiefly of Pleistocene and Tertiary invertebrates which had been on exhibition were removed from two wall cases and the cases placed in position in Hall 35 to receive the skeleton of the sabre-tooth tiger and other important specimens of the large collection of vertebrate fossils from California presented by Messrs. Ayer, Butler, Linn and Ryerson. By use of these two cases it was possible to place a representative series of these fossils on exhibition. The specimens installed include a complete mounted skeleton of the sabre-tooth tiger, several skulls of the same species, several skulls and a large number of bones of the fossil wolf, skulls and limb bones of the ground sloth, limb bones of the mastodon and horse, skulls and other bones of the bison, and skulls and other bones of various vulture-like and other birds. In order to make room for the additional cases and secure a better grouping of the specimens, some readjustment of the large cases in the Hall was also made. The specimens of fossil elk skull and horns from Palos Park, Illinois, presented by Mr. H. H. Honink, were also installed in this Hall. In Hall 59 a disarticulated skeleton of the sabre-tooth tiger was installed in a table-case, with each bone labeled so that the anatomical features of the skeleton may be readily studied. In the laboratory of vertebrate palæontology a model of the jaws of the great Eocene shark *Carcharodon* was completed, pains being taken to have the anatomical details as nearly correct as possible. The jaws, as completed, have a width of over six feet and an opening of four feet. For the first row of teeth actual fossil specimens were used and for the succeeding rows casts of these. The modeling of the lines of the jaw was based on careful studies of modern sharks. By careful attention to all these details it is believed that the characters of the ancient shark jaw are reproduced with great fidelity in this model. Owing to lack of space the model has not been placed on exhibition but will be available for the new building. The mounting of the skeleton of the sabre-tooth tiger received from California was modified so as to

give greater rigidity and a more natural pose and it was placed upon a new base. A skull and jaws of the Miocene horse, *Parahippus*, were prepared for exhibition and the mounting of a skeleton of the Miocene camel *Oxydactylus* was nearly completed. The large collection of fossil bones from the Los Angeles asphalt beds, numbering nearly 3000 specimens, was taken to Whiting, Indiana, where, through the courtesy of the Standard Oil Company, complete facilities were provided for soaking the bones in naphtha and thus dissolving out the tarry material. This treatment of the specimens was necessary to avoid the slow exudation of the asphalt which experience had shown would otherwise occur and cause injury to the interiors of the cases. The generosity of the Standard Oil Company in this connection is gratefully acknowledged.

In the Department of Zoology the collection of mammals in alcohol has been overhauled and fully identified. The collections of birds, mammals and insects were disinfected. The skins of the large mammals stored in the basement of the Museum are now reasonably accessible; only little progress has been made in completing the tanning of such skins as still remain in a raw state, the skin dresser having been occupied the greater part of the year on fresh material. Three large groups of birds, provided by the Stanley Field Ornithology Fund, have been finished and placed on exhibition. They represent bird life in Tropical America. (1) Oil birds, *Scoloparia caripensis*. This group shows breeding birds in a cave in which they live, and illustrates a form of bird life of great interest. The material for the group was secured by the Museum South American Expedition on the Island of Trinidad in 1914. (2) Group of Screamers and Scarlet Ibis. A striking and instructive group, also obtained by the Museum Expedition near Lake Maracaibo, Venezuela. This group contains specimens of both the curious Horned Screamer and Crested Screamer, together with a number of richly colored Scarlet Ibis, and forms one of the most attractive groups. (3) Group of American Flamingoes on their breeding ground on the Island of Great Inagua, Bahama Islands. The group shows 7 adult Flamingoes, with their peculiar cone-shaped nests, eggs, and two young birds in the nest. The painted background shows a continuation of the "rookery" which in the Inagua Colony numbered about 1,000 nests. The painted backgrounds of these groups greatly enhance their educational value, as the observer is able to become familiar with the natural environment of the species. During the year the taxidermists have been engaged in preparing an exhibition group of Alaska Moose, which is now nearly ready for installation. Considerable preliminary work has also been done on two other mammal groups, a group of





GROUP OF AMERICAN FLAMINGOES. *PHOENICOPTERUS RUBER* (LINN).  
Scene, Great Inagua Island, Bahamas.

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Olympic Elk and one of the Capybara and Jaguar. A small group of Thirteen-lined Ground Squirrels or "Striped Gophers" has been completed and is ready for installation. The exhibition collection of fishes was increased by the addition of a large sectional case containing on one side two large and eighteen small groups of Florida fishes, on the other side the same number of groups of fishes from California, the latter including very fine specimens of Salmon. A large group of Flying Fish is in course of preparation. The Wild Turkey group was improved by the substitution of a fine male bird for the younger one temporarily installed when the group was made. In the same way a rather small Canada Goose was removed from the Saskatchewan group and replaced by a fine large old bird. An Asiatic Elephant and a Giraffe, which through age and imperfection were undesirable for exhibition purposes, have been withdrawn and placed in storage to be sold or exchanged. Throughout the year the reinstallation of the shell exhibit has been carried on by Assistant Curator Gerhard and Preparator Liljeblad. Four of the new A-cases have been permanently installed, and two more filled temporarily with shells which were glued on tablets last year. In addition, enough shells have been remounted to fill three more cases, for two of which labels are ready. Installing the shells on individual shelves cannot be done so expeditiously as when the specimens are mounted on tablets, for which reason the work is consuming more time than was anticipated. In the division of Osteology 2 skeletons of Porpoise and 7 skulls were degreased at the Whiting degreasing plant; 8 skeletons of animals were prepared for the Osteological study collection and 4 skeletons were remounted; 367 skulls were prepared and cleaned for the Systematic study collection.

THE N. W. HARRIS PUBLIC SCHOOL EXTENSION OF FIELD MUSEUM OF NATURAL HISTORY.

—Early in May 1914, Mr. N. W. Harris offered to bear the expense of an exhibit at the Panama-Pacific International Exposition, of a number of cases, typical of those being circulated among the public schools of Chicago, under the auspices of The N. W. Harris Public School Extension of Field Museum of Natural History. This generous offer was approved by the Director and accepted by the President. The Curator was instructed to select such types of cases as would illustrate the nature and character of the work that was being devoted to Museum Extension. He was also instructed to make arrangements for suitable and adequate space for exhibiting the cases, to determine the architectural plans for the space, to make all arrangements for packing the cases and shipping same, and to depart for San Francisco in time to install the exhibit at the Exposition for the opening day, February 20th. Thirty-

four cases of natural history and economic subjects were selected and exhibited in the Palace of Education of the Exposition. The space allotted the exhibit, amounting to approximately 1300 square feet, was favorably and prominently located on three well traveled aisles. The exhibition of the cases was supplemented by motion pictures, illustrating the present and future Museum buildings, types of cases on standards, loading cases in delivery car, car leaving Museum, and arriving at school unloading cases, reception of cases in classroom, case on rack in classroom, pupils studying case in classroom and teacher using case as a means of teaching. These views were prefaced with an introduction on the cause and scope of the Museum Extension. The exhibit and the motion picture theatre were attended daily by large numbers of visitors, whose interests were manifested in many instances, by words of commendation for the work that is being carried on, and praise for the attractive physical features of the cases. Representatives of foreign and American institutions of learning made repeated careful and thorough examinations of the exhibit and enquiries as to methods of using the cases in schools. Japan, through its Commissioner General to the Exposition, requested several cases of economic subjects be sent to Tokyo for the purpose of studying them, with a view of introducing similar cases and the same system in the schools of Japan. Twenty-five thousand illustrated pamphlets describing in brief the Museum Extension, were circulated during the exposition period. Five thousand cards were mailed to educators of the United States and Canada inviting them to inspect the Museum exhibit at the Exposition. Doctor Maria Montessori, internationally known as an educator of children, said of this exhibit in an unsolicited letter.

"I admire very much the way in which nature is interpreted in this exhibit. The units attract the child's attention and do not teach errors.

"They truly represent nature. Besides, they have added value of permitting prolonged observation of the many details which in nature could only be seen in passing glimpses and to which it would be hard to attract the child's attention. The knowledge of these facts observed in this way makes the future observation of real nature more interesting to the child.

"I consider this collection a most desirable contribution to school work and education generally. I hope that more of these beautiful exhibits may be made."

In a competitive group this exhibit was awarded the grand prize, the highest award possible.

Many additional cases of various subjects were prepared during the year, bringing the total number of cases available for circula-



EXHIBIT OF THE N. W. HARRIS PUBLIC SCHOOL EXTENSION OF FIELD MUSEUM AT THE PANAMA-PACIFIC INTERNATIONAL EXPOSITION,  
SAN FRANCISCO, 1915.

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tion among the schools to about 390. While the weight of the delivery car is thought to be heavier than necessary, the designing of the carrying accommodations continues to meet with approval. It has a capacity of 45 cases. Requests for cases have been made by schools and community clubs in towns near Chicago. Delivery of cases was made to about 280 Main Schools. Each of these schools was provided with no less than 6 cases. The Board of Education continues to furnish to the classrooms, the standards upon which the cases are displayed for observation and study.

PHOTOGRAPHY AND ILLUSTRATION.—The following is a tabulation of the work performed in this Section:

	Number of Negatives made	Number of Prints made	Number of Lantern Slides made	Number of Enlarge- ments made	Number of Negatives developed for Expe- ditions	Number of 6 3/4 x 8 1/4 Posi- tives made. Used in making large Negatives
General . . . . .	12	200	..	..	..	..
Anthropology . . . . .	352	175	..	8	..	8
Botany . . . . .	5	399	2	..	..	..
Geology . . . . .	14	101	2	..	..	..
Zoology . . . . .	26	15	..	..	72	..
Harris Extension . . . . .	33	5	..	..	..	..
Distribution . . . . .	..	165	..	..	..	..
Gift . . . . .	..	410	12	..	..	..
Sale . . . . .	11	444	5	..	..	..
Totals . . . . .	453	1,914	21	8	72	8
Total number of Catalogue entries during year 1915 . . . . .						2,476
Total number of Catalogue entries to December 31, 1915 . . . . .						113,303
Total number of Record Books . . . . .						17

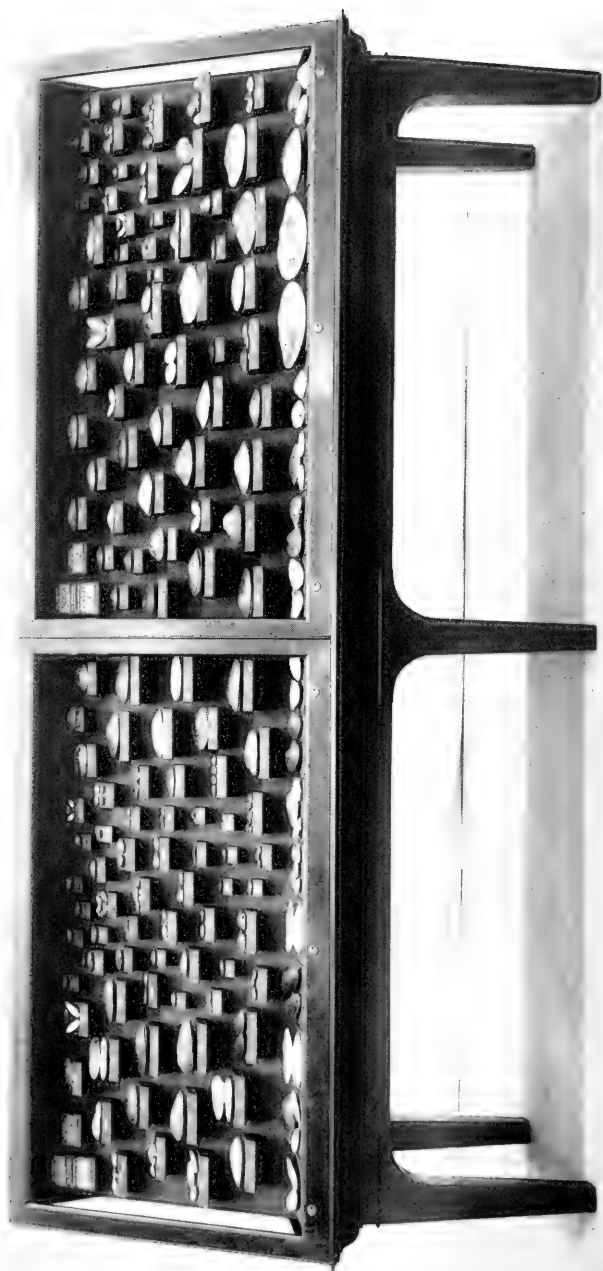
PRINTING.—The number of labels and other impressions made by the Section of Printing is as follows:

	Exhibition Labels	Other Impressions
Anthropology . . . . .	2,624	23,335
Botany . . . . .	1,065	22,950
Geology . . . . .	1,954	....
Zoology . . . . .	3,936	1,875
Library . . . . .	.....	7,225
General . . . . .	.....	35,709
N. W. Harris Public School Extension . . . . .	566	950

ATTENDANCE.—The total attendance record for the year is 194,926. Appended is a list of the classes, consisting of twenty or more pupils, that visited the Museum during the term under review:

Schools and Locations.	Teachers	Pupils
Forestville School — Forty-fifth Street and St. Lawrence Avenue . . . . .	1	25
St. Louis School — 11715 South State Street . . . . .	1	24
Francis W. Parker — 6800 South State Street . . . . .	6	38
University High School — Chicago, Illinois . . . . .	1	21
McLaren — York and Laflin Streets . . . . .	1	49
Lane Technical High School — Division and Sedgwick Streets . . . . .	1	107
Colman — 4655 South Dearborn Street . . . . .	3	42
University High School — Chicago, Illinois . . . . .	1	20
University Elementary — Fifty-ninth Street and Kenwood Avenue . . . . .	1	20
Chicago Academy of Fine Arts . . . . .	2	80
Lowell — Hurrah Street and North Spaulding Avenue . . . . .	1	30
St. Patrick's School — 2303 Park Avenue . . . . .	3	42
St. Elizabeth's School — 13 East Forty-first Street . . . . .	3	52
St. Catherine's School — 118th Street and Lowe Avenue . . . . .	2	52
Illinois University — Urbana, Illinois . . . . .	0	21
Morgan Park Prep. School — Morgan Park, Illinois . . . . .	1	23
St. Ignatius Academy — 6835 Broadway . . . . .	1	68
Parker School — 6800 South Stewart Avenue . . . . .	1	32
Holy Trinity High School — South Lincoln and West Taylor Streets . . . . .	2	27
Hessville Township School . . . . .	1	28
Raymond School — Wabash Avenue and Thirty-sixth Place . . . . .	1	38
University Elementary School — Fifty-ninth Street and Kenwood Avenue . . . . .	2	22
Hyde Park High School — Sixty-second Street and Stony Island Avenue . . . . .	2	115
University Elementary School — Fifty-ninth Street and Kenwood Avenue . . . . .	3	20
St. Bridget's School — Archer Avenue Corner of Grady Court . . . . .	1	30
Francis W. Parker — 6800 South Stewart Avenue . . . . .	1	39
Gary School — Gary, Indiana . . . . .	1	78
Brownell School — 6509 Perry Avenue . . . . .	1	38
Norwood Park School — 5850 Hurlbut Street . . . . .	1	23
Sumner School — South Kildare Street and Colorado Avenue . . . . .	1	33
Ray School — Fifty-seventh Street and Kimbark Avenue . . . . .	1	32
Lewis Champlin School — Sixty-second Street and Stewart Avenue . . . . .	2	23
Darwin School — Edgewood Avenue and Catalpa Court . . . . .	2	53
Willard School — Forty-ninth Street and St. Lawrence Avenue . . . . .	1	30
Curtis School — 115th Street and State Street . . . . .	1	42
Gladstone School — Robey Street and Washburne Avenue . . . . .	2	30
Cornell School — Seventy-fifth Street and Drexel Avenue . . . . .	1	20
Holy Cross School — Sixty-fifth Street and Maryland Avenue . . . . .	2	35
Spencer School — Park and Fiftieth Avenues . . . . .	1	20
Goodrich School — Sangamon and Taylor Streets . . . . .	1	25
Washburne School — Fourteenth between Jefferson and Union Streets . . . . .	1	23
Poe School — Fulton and One Hundred Sixth Streets . . . . .	2	30
Barnard School — Charles and One Hundred Fourth Streets . . . . .	1	21
Scanlan School — Perry Avenue between 117th and 118th Streets . . . . .	1	34





EXHIBITION CASE OF SHELLS.  
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Schools and Locations	Teacher	Pupils
Winnetka School — Winnetka, Illinois . . . . .	6	37
Zion Jewish School — 1261 South Halsted Street . . . . .	1	35
Juvenile Protective League — Blackhawk and Noble Streets . . . . .	0	22
Roseland Christian School — Roseland, Illinois . . . . .	1	23
Madison School — Seventy-fifth Street and Dorchester Avenue . . . . .	1	32
Goodrich School — Sangamon and Taylor Streets . . . . .	3	45
Wendell Philipps High School — Thirty-ninth Street and Prairie Avenue . . . . .	1	20
Englewood High School — Sixty-second Street and Stewart Avenue . . . . .	1	44
Washington School — Morgan and Grand Avenues . . . . .	1	54
Irving School — Lexington and South Leavitt Streets . . . . .	1	33
Morgan Park High School — Morgan Park, Illinois . . . . .	1	81
St. Andrews School — Hammond, Indiana . . . . .	5	83
University Elementary — Fifty-ninth Street and Kenwood Avenue . . . . .	2	23
University Elementary — Fifty-ninth Street and Kenwood Avenue . . . . .	2	24
University High School — Chicago, Illinois . . . . .	0	32
University of Chicago . . . . .	0	52
University of Chicago . . . . .	0	40
Horace Mann — Thirty-seventh Street and Princeton Avenue . . . . .	6	37
Sullivan School — Eighty-third Street and Houston Avenue . . . . .	1	27
John McLaren School — York and Laffin Streets . . . . .	1	46
Dalton School — Dalton, Illinois . . . . .	2	43
West Hammond School — Hammond, Indiana . . . . .	1	20
University of Chicago . . . . .	2	22
Flower High School — Twenty-sixth Street and South Wabash Avenue . . . . .	1	30
Jewish Training School } 554 West Twelfth Place . . . . .	1	35
Jewish Training School } . . . . .	1	41
University High School — Chicago, Illinois . . . . .	1	35
Pullman Manual Training School — Pullman, Illinois . . . . .	1	25
Parker High School — Sixty-eighth Street and Stewart Avenue . . . . .	1	47
Pullman Manual Training School — Pullman, Illinois . . . . .	1	25
Bowen High School — Eighty-ninth Street and Manistee Avenue . . . . .	0	23

Herewith are also submitted financial statements, list of accessions, names of members, etc., etc.

FREDERICK J. V. SKIFF, Director.

## FINANCIAL STATEMENT

### RECEIPTS AND DISBURSEMENTS

January 1, 1915, to December 31, 1915

#### RECEIPTS

Cash in Treasurer's hands, General Fund, December 31, 1914 . . .	\$10,828.95
Cash in Treasurer's hands, New Exhibition Cases Fund, December 31, 1914 . . .	3,490.27
Cash in Treasurer's hands, Endowment Sinking Fund, December 31, 1914 . . .	525.00
Cash in Treasurer's hands, Picture Postal Cards, December 31, 1914 . . .	433.34
Petty Cash on hand, December 31, 1914 . . .	739.95
Dues of Life Members . . .	1,000.00
Dues of Annual Members . . .	1,090.00
Admissions and Check Rooms . . .	5,418.75
Sale of Guides . . .	150.25
South Park Commissioners . . .	15,000.00
Interest on Investments and Bank Balances . . .	9,490.75
Field Endowment Income . . .	131,500.00
Field Endowment Sinking Fund . . .	500.00
Field Endowment Sinking Fund Investments retired . . .	315.00
Field Endowment Sinking Fund Income . . .	220.99
New Exhibition Cases Fund Investments retired . . .	7,070.00
New Exhibition Cases Fund Income . . .	620.88
New Building Moving and Furnishing Fund Income . . .	175.00
Stanley Field Ornithology Fund . . .	600.00
H. W. Jackson Library Fund Income . . .	58.28
Donations:	
Martin A. Ryerson . . .	\$1,250.00
Homer E. Sargent . . .	2,175.00
Cyrus H. McCormick . . .	1,000.00
Fritz Von Frantzius . . .	1,500.00
Edward E. Ayer . . .	250.00
Edward B. Butler . . .	250.00
W. R. Linn . . .	250.00
Stanley Field . . .	200.00
Arthur B. Jones . . .	200.00
	7,075.00
Life Memberships Fund Income . . .	409.94
Life Memberships Fund Investments retired . . .	256.69
Sale of Picture Postal Cards . . .	587.53
Sundry Receipts . . .	71.60

\$197,628.17

## DISBURSEMENTS

Salaries . . . . .		\$70,511.91	
Guard Service . . . . .		11,955.87	
Janitor Service . . . . .		6,757.51	
Fire Protection . . . . .		4,306.72	
Heat and Light . . . . .		12,125.73	
Repairs and Alterations:			
Wages — Carpenters, Painters, Roofers, etc. . . . .	\$7,715.41		
Materials used — lumber, paints, oils, glass, etc. . . . .	1,179.03	8,894.44	
Furniture and Fixtures — Cases . . . . .		10,263.44	
The Library:			
Books and Periodicals . . . . .	1,091.37		
Binding . . . . .	588.71		
Sundries . . . . .	89.05	1,769.13	
Collections, etc., purchased . . . . .		37,351.92	
Installation expense . . . . .		2,291.83	
Expeditions . . . . .		4,300.00	
Publications . . . . .		1,778.50	
Sections of Photography and Printing — Supplies . . . . .		353.68	
General Expense Account:			
Freight, Expressage and Teaming . . . . .	2,204.13		
Stationery, Postage and Telephones . . . . .	747.45		
Liability Insurance . . . . .	663.52		
Picture Postal Cards . . . . .	645.27		
Sundries . . . . .	889.95	5,150.32	
Stanley Field Ornithology Fund . . . . .		724.75	
Woman's Temple Building Association — Foreclosure Expenses . . . . .		2,407.18	
H. W. Jackson Library Fund — Investments . . . . .		68.70	
New Building Moving and Furnishing Fund — Investments . . . . .		7,245.00	
Life Memberships Fund — Investments . . . . .		1,666.63	
Endowment Sinking Fund — Investments . . . . .		1,509.26	
Picture Postal Cards — Certificate of Deposit . . . . .		375.60	
In Treasurer's hands, December 31, 1915:			
General Fund . . . . .	4,126.39		
New Exhibition Cases Fund . . . . .	917.71		
Endowment Sinking Fund . . . . .	36.00	5,080.10	
Petty Cash on hand, December 31, 1915 . . . . .		739.95	
			\$197,628.17

# ATTENDANCE AND RECEIPTS FROM JANUARY 1 TO DECEMBER 31, 1915

## ATTENDANCE.

Paid Attendance —		
Adults . . . . .	18,582	
Children . . . . .	2,210	20,792
Free Admission on Pay Days —		
School Children . . . . .	4,296	
Students . . . . .	3,043	
Teachers . . . . .	498	
Members: Corporate . . . . .	21	
Annual . . . . .	12	
Life . . . . .	5	
Officers' Families . . . . .	74	
Special . . . . .	109	
Press . . . . .	12	8,071
Admissions on Free Days —		
Saturdays . . . . .	42,223	
Sundays . . . . .	123,841	166,064
Total Attendance . . . . .		194,921
Highest Attendance on any one day (August 8, 1915) . .		7,051
Highest Paid Attendance on any one day (July 5, 1915) .		601
Average Daily Admissions (363 days) . . . . .		534
Average Paid Attendance (260 days) . . . . .		770

## RECEIPTS.

Guides sold — 601 at 25 cents each . . . . .	\$ 150.25
Articles checked — 11,045 at 5 cents each . . . . .	552.25
Admissions . . . . .	4,866.50
	<hr/>
	\$5,569.00

## ACCESSIONS

### DEPARTMENT OF ANTHROPOLOGY

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AYER, E. E., Chicago.

Collection of beads and shells found in grave, with two skeletons—  
Leadbetter Landing, Benton Co., Tenn.

4 Moro bronze guns (lantaka).

161 chipped obsidian projectile points—Upper Lake, Lake County, Cal.

19 miniature Pomo baskets—Cal.

BAHR, PETER J., Shanghai, China.

6 archaic stone implements—Hupeh Province, China.

18 archæological specimens of bone, stone, and bronze—Hupeh Province,  
China.

BECKER, ROBERT H., Chicago.

1 grooved stone axe—La Paz, Bolivia.

2 pottery fragments — Ruins of Chanchan, Peru.

CARPENTER, MRS. H. I., Chicago.

18 miscellaneous ethnological objects, chiefly Alaska.

CHALMERS, W. J., Chicago.

Roman pottery lamp — Zalathna, Transylvania, Hungary.

Metal charm — Abyssinia.

21 African weapons.

1 Japanese temple gong.

DUNN, MRS. FRANK A., Milwaukee, Wis.

1 counterpane — Philadelphia, Pa.

EGYPTIAN EXPLORATION FUND.

Crystal eye set in copper, from a statue.

Piece of agate for inlaying.

2 fragments lapis lazuli from a jar.

1 lapis-lazuli bead.

EMMONS, LIEUT., G. F., Princeton, N. J.

1 graphite carving of whale — Alaska (exchange).

1 Chinese bronze figure (exchange).

FERNBACH, O. H., San Francisco, Cal.

Pre-Columbian celt of diabase — Quezaltenango, Guatemala.

FIELD MUSEUM OF NATURAL HISTORY.

Purchases:

Persian chain-mail, helmet with sword, arm-guard, hauberk, and  
gauntlet.

15 pieces prehistoric pottery — Walton County, Fla.

1 pottery fragment — Walton County, Fla.

1 skull — Walton County, Fla.

57 Pompeian antiquities in bronze, iron, pottery, and glass — Pompeii.

FISHER, MRS. H. S., Chicago.

Sandstone disc — Ponca Indians, Neb.

FRANTZIUS, FRITZ VON, Chicago.

Collection of Japanese coins, originals and reproductions, made by order of the Japanese Government, complete set consisting of 747 (more or less) metal coins, 31 pieces of paper money, and 5 implements, all mounted and labeled in Japanese, on 50 wooden plates — Tokyo, Japan.

1 imperial jade seal — Peking, China.

1 imperial jade book — Peking, China.

1 gold ring — China.

GUNSAULUS, DR. FRANK W., Chicago.

Rosary of a hundred Burmese amber beads — Peking, China.

HACKETT, E. P., Albany, New York.

2 ancient Chinese bronze coins — third century B. C.

MCCORMICK, CYRUS H.; RYERSON, MARTIN A.; SARGENT, HOMER E., Chicago.

General ethnological collection: carvings, textiles, brass, jewelry, etc. — India. Collected by Geo. A. Dorsey.

SARGENT, HOMER E., Chicago.

2 old Navajo blankets.

SMITH, MRS. CAROLINE, Chicago.

4 carved wood images — Congo, Africa.

1 mask — Congo, Africa.

1 small fragment from a tomb — Luxor, Egypt.

SPRAGUE, A. A., 2d, Chicago.

1 Navajo blanket — Southwest, U. S. A.

SUMNER, REV. W. T., Chicago.

1 prehistoric pottery jar — Arizona.

TEASON, WILLIAM, Palos Park, Ill.

1 prehistoric chert arrowhead — Palos Park, Ill.

## DEPARTMENT OF BOTANY

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

ARMOUR, ALLISON V., New York, and MILLSPAUGH C. F., Chicago.

12 herbarium specimens — Yucatan and Mexico.

BALL, CARLETON R., Washington, D. C.

3 herbarium specimens — La.

BEBB, HERBERT, Chicago.

4 herbarium specimens — Ill. and Ohio.

1 herbarium specimen — Ill.

BOTANICAL GARDENS, Sydney, N. S. W.

99 herbarium specimens — New South Wales, etc. (exchange).

BOYD, D. H., Whiting, Ind.

1 herbarium specimen — Ind.

BUREAU OF SCIENCE, Manila, P. I.

1367 herbarium specimens (exchange).

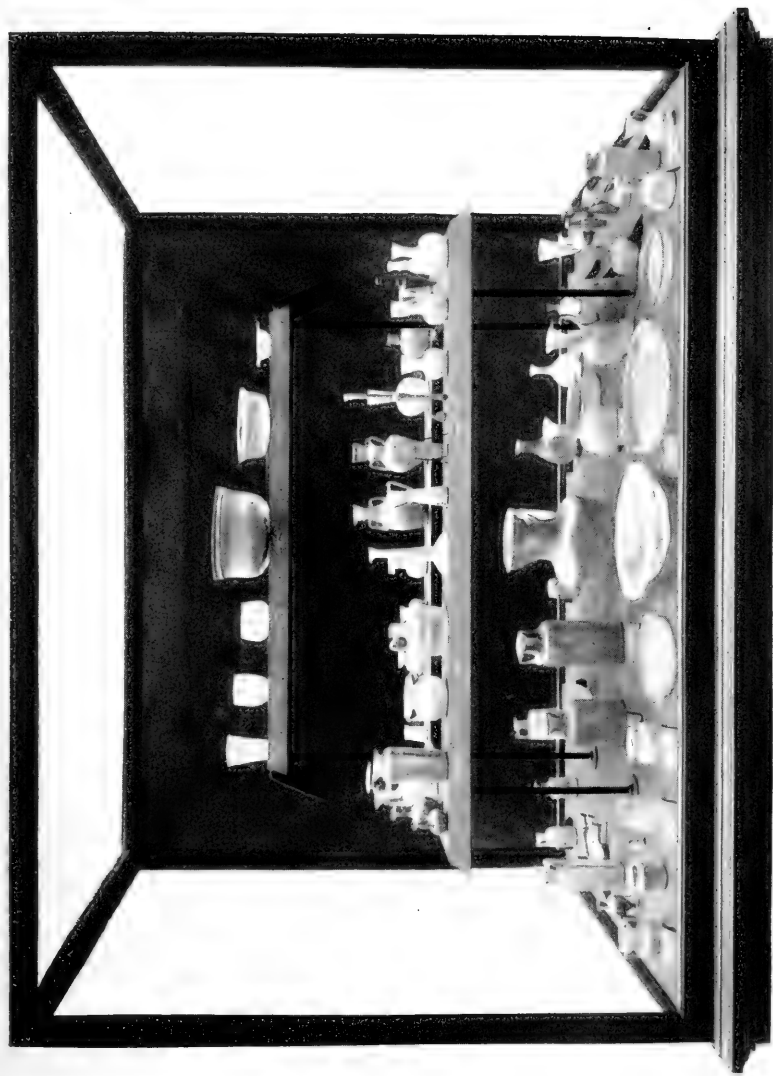
CHALMERS, W. J., Chicago.

1 blackthorn shillelagh — Ireland.



- CLOKEY, IRA W., Decatur, Ill.  
147 herbarium specimens — Mass., Saskatchewan, and Ill. (exchange).
- COKER, W. C., Chapel Hill, N. C.  
1 herbarium specimen — S. C.
- COPULOS, MILTON D., Chicago.  
Wax reproduction of garden cucumber.
- CORY, MRS. CHAS. B., Chicago.  
5 herbarium specimens — Ill.
- COWLES, HENRY C., Chicago.  
1 herbarium specimen — Ill.
- CURLEY, F. E. A., St. Louis, Mo.  
1 Philippine sugar mill — St. Louis Exposition.
- DENSLOW, H. M., New York City.  
18 herbarium specimens — Vermont, New Jersey, and New York.
- FIELD MUSEUM OF NATURAL HISTORY.  
Collated by C. F. Millspaugh:  
651 herbarium specimens — various localities.  
Collected by O. E. Lansing, Jr.:  
17 herbarium specimens — Palos Park, Ill.  
151 herbarium specimens — Lake Chicago Basin.  
Purchases:  
689 herbarium specimens — Leyte, P. I.  
195 herbarium specimens — Alberta, Canada.  
608 herbarium specimens — Mexico.  
149 herbarium specimens — Porto Rico.  
109 native woods — Sandwich Islands.  
200 herbarium specimens — Bolivia.  
260 herbarium specimens — Colo.  
397 herbarium specimens — Philippine Islands.  
1044 herbarium specimens — Cal.
- GAUMER, DR. G. F., Yucatan, Mexico.  
41 herbarium specimens — Yucatan.
- GRAY, HERBARIUM, Cambridge, Mass. (exchange).  
1 herbarium specimen — Mexico.  
415 herbarium specimens — Texas and New Mexico.
- HALL, H. M., Berkeley, Cal.  
1 herbarium specimen — Cal.
- HERBARIUM BOISSIER, Geneva, Switzerland.  
60 herbarium specimens — Brazil (exchange).
- HUTCHINSON, MRS. CHAS. L., Lake Geneva, Wis.  
1 herbarium specimen — Wis.
- JOHNSON, FRANK W., Chicago.  
118 herbarium specimens — Wis.
- KEW HERBARIUM, London, England.  
2 herbarium specimens West Indian boxwood — Venezuela.
- KING, MISS ANNA, Chicago.  
3 herbarium specimens — Mich. and Ill.
- KNUDSON, PEDER, Ephraim, Wis.  
1 specimen beech nuts — Ephraim, Wis.

- KUSSNER, ALBERT, Chicago.  
1 old spinning wheel.
- LANSING, O. E., JR., Chicago.  
1 weathered root — Ind.
- LOEB, JACOB A., Chicago.  
24 herbarium specimens — New York.
- MANCHESTER MUSEUM, Manchester, England.  
1 blackthorn shillelagh — Ireland.  
2 masses Kelp potash — Ireland.
- MILLSPAUGH, C. F., Chicago.  
Wax reproduction of Japanese persimmon and of sassafras fruits.  
2 herbarium specimens — Chicago.  
84 herbarium specimens — Ephraim, Wis.
- MOYER, LYCURGUS R., Montevideo, Minn.  
30 herbarium specimens — various localities.
- MUSSELMAN, V. G., Quincy, Ill.  
2 specimens fungi — Ill.
- NATAL BOTANICAL GARDEN, Berea, Natal.  
101 herbarium specimens — South Africa (exchange).
- NEW YORK BOTANICAL GARDEN, Bronx Park, New York City.  
6 photographs of Wright's Cuban Coccolobi (exchange).  
4 herbarium specimens — Porto Rico (exchange).
- OWEN, C. L., Chicago.  
2 herbarium specimens — Ariz.
- PADILLA, SR. SISTO ALBERTO, El Salvador, San Salvador.  
1 bundle grass — El Salvador.
- PARISH, S. B., San Bernardino, Cal.  
10 herbarium specimens — Nev. and Cal.
- PARKE, DAVIS & COMPANY, New York.  
1 herbarium specimen — Yucatan.
- PFEIFFER, MISS NORMA E., Chicago.  
1 type specimen *Thismia americana* — Ill.
- SHERFF, EARL E., Chicago.  
1 herbarium specimen — France.  
672 photographs of type sheets of *Bidens* and *Cosmos*.  
232 herbarium specimens — Ill. and Ind.
- SMITH, HURON H., Portland, Oregon.  
53 herbarium specimens — Oregon.
- TYRELL, E. R., Chicago.  
1 fungus — Chicago.  
1 fungus *Crucibulum vulgare* — Chicago.
- U. S. DEPT. OF AGRICULTURE, Washington, D. C.  
47 herbarium specimens — Siberia and China (exchange).
- U. S. NATIONAL HERBARIUM, Washington, D. C.  
228 herbarium specimens (exchange).  
201 herbarium specimens of grasses (exchange).
- UNIVERSITY OF CALIFORNIA, Berkeley, Cal.  
2 portions of type plants — Mexico.
- WILBER, MARSHALL D., Chicago.  
4 specimens Malayan plantation rubber.



A CASE OF ANTIQUE GLASS IN NORTH COURT.  
Showing new method of shelf installation.

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## DEPARTMENT OF GEOLOGY

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ALEXANDER, W. B., Scales Mound, Ill.

3 specimens vanadinite — Tucson, Ariz.

AYER, E. E.; BUTLER, E. B.; LINN, W. R.; RYERSON, M. A., Chicago.

2111 specimens fossil vertebrates — Rancho La Brea, Cal.

BAEKELAND, DR. L. H., Yonkers, New York.

1 specimen bakelite.

BAILEY, DR. E. S., Chicago.

2 specimens glass colored by mesothorium.

BEBB, DR. WM., Chicago.

532 specimens bones of fossil vertebrates — Rancho La Brea, Cal.

BRADFORD, PERRY, Centerton, Ind.

5 specimens sapphire — Centerton, Ind.

BRITISH COMMISSION, LOUISIANA PURCHASE EXPOSITION, St.  
Louis, Mo.

1 specimen magnesite — India.

1 specimen manganese ore — India.

BROWN, MRS. A. S., East Stoneham, Maine.

1 feldspar crystal — East Stoneham, Maine.

CHALMERS, THOS. S., Chicago.

1 specimen gold ore—Smuggler—Union Mine, Telluride, Colo.

CHALMERS, WM. J., Chicago.

60 specimens minerals and ores — various localities.

1 specimen silver-lead ore — Kellogg, Idaho.

2 specimens gold — West Coast of Africa.

CHEROKEE CHEMICAL CO., Kings Creek, S. C.

2 specimens barite — Kings Creek, S. C.

COLORADO-YULE MARBLE CO., Marble, Colo.

6 polished slabs Colorado-Yule marble — Marble, Colo.

DERR, H. B., Sikeston, Mo.

3 specimens St. Peter sandstone — Utica, Ill. (exchange).

1 specimen molding sand — Utica, Ill. (exchange).

1 specimen furnace sand — Utica, Ill. (exchange).

30 specimens soils, ochers, clays, etc.— Missouri (exchange).

DESERET MUSEUM, Salt Lake City, Utah.

15 specimens tetrahedrite and pyrite — Bingham, Utah (exchange).

15 specimens products of Great Salt Lake — Great Salt Lake, Utah  
(exchange).

DUREX CHEMICAL WORKS, New York City.

1 specimen barite — Sweetwater, Tenn.

FARNSWORTH, J. E. and R. M., Lancaster, Mass.

1 specimen fuller's earth — Lancaster, Mass.

FIELD, STANLEY, and JONES, ARTHUR B., Chicago.

2 meteorites — Blanket, Texas.

FIELD MUSEUM OF NATURAL HISTORY.

Collected by O. C. Farrington:

3 specimens granite — Pike's Peak, Colo.

6 specimens gypsum — Garden of the Gods, Colo.

Collected by H. W. Nichols:

5 specimens ores, rocks and fossils — Stony Creek, Granite Co., Mont.

Made in the Departmental laboratories:

1 mine model.

Purchases:

3 specimens volcanic bombs — Idaho.

4 specimens sand-faceted pebbles — Cape Cod, Mass.

5 specimens gold ore — Cripple Creek, Colo.

17 specimens crinoids and other fossils — Kansas City, Mo.

1 specimen Big Skookum meteorite — Yukon Dist., Alaska.

FISHER, MRS. H. S., Chicago.

41 specimens minerals and fossils — various localities.

FLORIDIN CO., Warren, Pa.

6 specimens crude and ground fuller's earth — Quincy, Fla.

FOSHAG, WM., Berkeley, Cal.

8 specimens minerals — Riverside, Cal. (exchange).

GEOLOGICAL SURVEY OF INDIA, Calcutta, India.

3 specimens laterite — Kalahandi, India.

GREEN, JAMES A., Chicago.

1 fossil elk antler — Palos Park, Ill.

1 portion deer antler — Palos Park, Ill.

HANINK, H. H., Palos Park, Ill.

1 fossil elk skull with antlers — Palos Park, Ill.

JEWELL, FRED, Osborne, Kan.

6 specimens fossils — Harlan, Kan.

KRANTZ, DR. P., Bonn, Germany.

1 specimen fossil lizard — Solenhofen, Germany (exchange).

KREBS PIGMENT AND CHEMICAL CO., Newport, Del.

2 specimens barite — Cartersville, Ga.

LESTER CLAY CO., Jacksonville, Fla.

1 specimen each ground and raw fuller's earth — Attapulugus, Ga.

MALLINCKRODT CHEMICAL WORKS, St. Louis, Mo.

1 specimen acetanilide.

1 specimen acetphenetidin.

MANATEE FULLER'S EARTH CORPORATION, Ellenton, Fla.

5 specimens fuller's earth — Ellenton, Fla.

MARSH, C. H., Marshfield, Ore.

3 specimens ores — Ore.

1 specimen natrolite — Myrtle Point, Ore.

MINING MUSEUM, Sydney, New South Wales.

1 print etching figures of Delegate meteorite.

MOSHER, J. H., Glendive, Mont.

8 specimens jasper (cut).

4 specimens agatized wood (cut).

2 specimens moss agate (cut).

1 specimen moss agate pebble (polished).

13 specimens moss agate and jasper — Glendive, Mont. (loan).

NICHOLAS, FRANCIS C., Tucson, Ariz.

1 specimen tungsten ore — Las Guijas, Ariz.

9 specimens copper ores — Nogales, Ariz.

- NORTON, E. G., Chicago.  
 3 specimens calaverite — Cripple Creek, Colo. (exchange).
- O'CONNOR, E. S., Mayville, Wis.  
 9 specimens iron ore — Mayville, Wis.
- PATTEE, FRED, Chicago.  
 6 specimens rock phosphate — Cokeville, Wyo.  
 1 specimen argillaceous chalk — Cheyenne, Wyo.  
 1 specimen conglomerate — Cheyenne, Wyo.  
 25 specimens asbestos, gold and copper ores, etc. — various localities.  
 9 specimens copper ore — Globe, Ariz.  
 15 specimens vanadium ore — Globe, Ariz.  
 3 specimens barite — Wyo.  
 3 specimens gold, silver, copper and manganese ores — Ariz. and Wyo.
- PENNSYLVANIA SALT MFG. CO., Natrona, Pa.  
 1 specimen pyrite — Rio Tinto, Spain.
- PIERCE, FRANKLIN, Chicago.  
 1 specimen eroded quartz — Adamana, Ariz. (loan).
- ROSENBAUM, RUDOLPH R., Chicago.  
 2 specimens grahamite — Sardis, Okla.  
 1 specimen impsonite — Sardis, Okla.
- ROSS, D. M., Etna, Wyo.  
 1 specimen fossil crinoids — Etna, Wyo.
- SCHALL, GEO., Chicago.  
 1 specimen schist — Chicago.
- SCOTT, GEO. S., New York City.  
 1 specimen psittacinite — Bisbee, Ariz. (exchange).
- TEASON, WM., Palos Park, Ill.  
 14 specimens trilobites and other fossils — Palos Park, Ill.  
 3 specimens marcasite concretions — Palos Park, Ill.
- THOMPSON, WEINMAN & CO., Nicholasville, Ky.  
 1 specimen barite — Nicholasville, Ky.
- TOWER, RAY J., Greenville, Mich.  
 1 specimen core sand — Greenville, Mich.  
 1 specimen core — Greenville, Mich.
- WILEY, JOHN, Florissant, Colo.  
 1 specimen petrified wood — Florissant, Colo.
- WILLIAMS, C. K. COMPANY, Easton, Pa.  
 1 specimen talc — Easton, Pa.  
 2 specimens ground talc — Easton, Pa.
- WOOD, H. R., Prescott, Ariz.  
 4 specimens tungsten ore — Maricopa Co., Ariz.
- ZIEGE, MAX E., Joy, Nevada.  
 33 specimens ores — Ruby Mountain Dist., Nevada.

## DEPARTMENT OF ZOÖLOGY

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AMERICAN MUSEUM OF NATURAL HISTORY, Central Park, New York City.

2 young flamingoes (exchange).

44 FIELD MUSEUM OF NATURAL HISTORY — REPORTS, VOL. V.

ARMSTRONG, EDWARD E., Chicago.

- 1 silver haired bat.

BATY, W. L., South Butte, Mont.

- 2 flying squirrels — South Butte, Mont.
- 2 American magpies — South Butte, Mont.

CLAPLIN, B. A., Green Bay, Wis.

- 1 abnormal domestic duck — Green Bay, Wis.

CLARK, B. PRESTON, Boston, Mass.

- 24 species hawk-moths.

CURLEY, F. E. A., St. Louis, Mo.

- 2 jaw bones of whale.

DOUBLER, L., Chicago.

- 1 ensign fly — Chicago.
- 1 beetle — Ft. Jennings, Ohio.

EIGENMANN, C. H., Bloomington, Ind.

- 265 fishes (43 species) — Colombia and Ecuador.

FIELD STANLEY, Chicago.

- 6 scarlet ibis — Miritiba, Brazil.
- 109 bird skins — Dutch Guiana.
- 1 flamingo — Fla.

FIELD MUSEUM OF NATURAL HISTORY.

Collected by R. H. Becker:

- 1 cockroach — Trinidad, S. A.

Collected by W. J. Gerhard:

- 87 dragon-flies, grasshoppers, bugs, butterflies, moths, beetles, flies, bees, wasps and parasites—N. Ind. and Ill.

Collected by J. Friesser:

- 7 mammals — Wash.
- 1 beetle — Wash.

Collected by A. B. Lewis:

- 105 shells — Bismarck Archipelago.
- 12 shells — Malekula, New Hebrides.

Collected by W. H. Osgood:

- 50 shells — La Vina, Peru.
- 2 shells — Balsas, Peru.

Purchases:

- 1 Alaskan moose — Kenai Peninsula, Alaska.
- 1 butterfly — Muzo, Colombia.
- 1 passenger pigeon.
- 5 frogs — Brownsville, Texas.
- 8 shells — Brownsville, Texas.
- 3 passenger pigeons — New York.
- 1 Eskimo curlew — Canada.

FRIESSER, JULIUS, Chicago.

- 1 snowy owl — Chicago.
- 1 wild turkey egg.

GILL, DR. GEO. M., Lebanon, Tenn.

- 2 beetles — Lebanon, Tenn.
- 1 horned corydalis — Lebanon, Tenn.
- 9 parasites—Lebanon, Tenn.



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- HENN, A. W., Bloomington, Ind.  
1 deer skull — Ecuador.  
1 agouti skull — Colombia.  
1 rabbit skull — Ecuador.  
1 pair deer horns — Colombia.
- HALL, CATHERINE J. and MARTHA O., Chicago.  
1 parrot.
- HEIMSTREET, DR. THOS. B., Troy, New York.  
1 long-billed curlew—Canada.
- LILJEBLAD, E., Chicago.  
27 cicadas, flies, beetles, wasps, parasites, etc. — Ind. and Ill.
- LINCOLN PARK ZOO, Chicago.  
1 orang-outang (in flesh).
- ORCUTT, C. R., San Diego, Cal.  
255 shells — Cal., Texas, and Mexico.
- PRAY, LEON L., Chicago.  
1 calico bass — Jackson Park Lagoon, Chicago.
- RODWAY, J., Georgetown, British Guiana.  
2 South American sparrow hawks (exchange).
- ROMANO, JOE, Chicago.  
2 pigeons — Jackson Park, Chicago.  
1 English sparrow — Jackson Park, Chicago.
- SEWARD, MRS. EMMA MAY, Chicago.  
1 saw-fish — Ft. Meyers, Fla.  
1 alligator (spoiled) — Ft. Meyers, Fla.
- SIEGEL, COOPER & CO., Chicago.  
1 lemur—Madagascar.
- SMITH, HURON H., Ingalls, Ind.  
1 red-shouldered hawk — Ingalls, Ind.
- STODDARD, H. L., Chicago.  
5 bird lice — Dune Park, Ind.  
2 louse-flies — Hyde Ridge, Ill.
- UMBACH, L. M., Naperville, Ill.  
10 bugs — Naperville, Ill.
- VOOGDT, CAPT.  
1 emu egg — New Guinea (exchange).
- WELCH, WILLIAM, Chicago.  
1 lamprey — Jackson Park Lagoon, Chicago.
- WELD, L. W., Evanston, Ill.  
4 gall insects — State of Michoacan, Mexico.  
3 gall insect guests — State of Michoacan, Mexico.
- WESTCOTT, DR. O. S., Oak Park, Ill.  
2 jumping plant-lice.  
8 dragon-flies — Ill., Fla., Cal., Mexico, and British Guiana.
- WICKER, MISS CAROLYN, Chicago.  
1 mounted ruff of a bustard — India.
- WICKHAM, H. F., Iowa City, Iowa.  
3 moths — Koehler, N. M.

WILLIAMSON, E. B., Bluffton, Ind.

3 red-tailed hawks — Bluffton, Ind.

1 loon — Bluffton, Ind.

1 barn owl — Bluffton, Ind.

WOLCOTT, A. B., Chicago.

4 salamanders — Mineral Springs, Ind.

18 dragon-flies, bugs, beetles, flies, moths and wasps — Northern Illinois.

## SECTION OF PHOTOGRAPHY

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

LAUFER, BERTHOLD, Chicago.

188 mounted photographs of scenes and types of natives from Saghalin and Amur region.

FIELD MUSEUM OF NATURAL HISTORY.

Made by the section:

453 negatives of Museum specimens, etc., 1914 prints from same, 21 lantern slides, 8 enlargements, 72 negatives developed for Museum field expeditions, 8 positives for use in making large negatives.

HARRISON, WM. PRESTON, Chicago.

35 photographs of South Sea Islanders.

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Agricultural Experiment Station, Berkeley . . . . . 7

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California Fish and Game Commission, Sacramento . . . . . 8

California State Board of Forestry, Sacramento . . . . . 1

California University, Berkeley . . . . . 16

Cooper Ornithological Club, Hollywood . . . . . 2

Leland Stanford Junior University, Stanford University . . . . . 2

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State Bureau of Mines, Denver . . . . .	1
State Historical and Natural History Society, Denver . . . . .	1
University of Colorado, Boulder . . . . .	2
<b>CONNECTICUT</b>	
Agricultural Experiment Station, New Haven . . . . .	6
American Oriental Society, New Haven . . . . .	1
Connecticut Academy of Arts and Sciences, New Haven . . . . .	3
Connecticut Fish and Game Commission, Hartford . . . . .	1
Connecticut Geological and Natural History Survey, Hartford . . . . .	3
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State Board of Agriculture, Springfield . . . . .	4
State Geological Survey, Urbana . . . . .	5

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Academy of Science, Topeka . . . . .	1
Agricultural Experiment Station, Manhattan . . . . .	8
State Board of Agriculture, Topeka . . . . .	4
State Historical Society, Topeka . . . . .	1
University of Kansas, Lawrence . . . . .	1
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Agricultural Experiment Station, Baton Rouge . . . . .	8
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American Antiquarian Society, Boston . . . . .	2
Amherst College . . . . .	1
Archaeological Institute of America, Boston . . . . .	1
Boston Museum of Fine Arts . . . . .	2
Boston Public Library . . . . .	1

Boston Society of Natural History . . . . .	1
Cambridge Public Library . . . . .	1
Clark University, Worcester . . . . .	2
Essex Institute, Salem . . . . .	2
Harvard College, Cambridge . . . . .	4
Harvard University, Cambridge . . . . .	2
Horticultural Society, Boston . . . . .	2
Institute of Technology, Boston . . . . .	2
New Bedford Free Public Library . . . . .	2
Peabody Institute, Salem . . . . .	3
Peabody Museum of American Archaeology and Ethnology, Cambridge . . . . .	2
Phillips Academy, Andover . . . . .	1
Salem Public Library . . . . .	2
Springfield Library Association . . . . .	2
Springfield Natural History Museum . . . . .	1
Williams College, Williamstown . . . . .	4
Worcester County Horticultural Society, Worcester . . . . .	1
Worcester Free Public Library . . . . .	2

## MICHIGAN

Academy of Sciences, Ann Arbor . . . . .	1
Agricultural Experiment Station, Agricultural College . . . . .	4
Detroit Museum of Art . . . . .	2
Detroit Public Library . . . . .	1
Geological and Biological Survey, Lansing . . . . .	3
Grand Rapids Public Library . . . . .	3
Michigan College of Mines, Houghton . . . . .	1
National Educational Association of the United States, Ann Arbor . . . . .	3
State Board of Agriculture, Lansing . . . . .	1
University of Michigan, Ann Arbor . . . . .	2

## MINNESOTA

Agricultural Experiment Station, St. Paul . . . . .	10
Minneapolis Historical Society, St. Paul . . . . .	3
Minnesota Forestry Board, St. Paul (gift) . . . . .	1
Minnesota Geological Survey, Minneapolis . . . . .	1
University of Minnesota, Minneapolis . . . . .	6

## MISSOURI

Agricultural Experiment Station, Columbia . . . . .	9
Bureau of Geology and Mines, Jefferson City . . . . .	1
City Art Museum, St. Louis . . . . .	1
Missouri Botanical Garden, St. Louis . . . . .	2
St. Louis Academy of Sciences . . . . .	1
St. Louis Mercantile Library Association . . . . .	1
St. Louis Public Library . . . . .	2
St. Louis University . . . . .	1
State Historical Society, Columbia . . . . .	2
University of Missouri, Columbia . . . . .	2
Washington University, St. Louis . . . . .	2

## MONTANA

Agricultural Experiment Station, Bozeman . . . . .	1
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## NEBRASKA

Academy of Sciences, Lincoln . . . . .	1
Agricultural Experiment Station, Lincoln . . . . .	3
Nebraska Game and Fish Commission, Lincoln (gift) . . . . .	2
Omaha Museum (gift) . . . . .	1
University of Nebraska, Lincoln . . . . .	2
University of Nebraska Forest Club, Lincoln . . . . .	6

## NEVADA

State University, Reno . . . . .	4
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## NEW HAMPSHIRE

College of Agriculture, Durham . . . . .	4
Forestry Commission, Concord . . . . .	3

## NEW JERSEY

Agricultural Experiment Station, Trenton . . . . .	12
Craftsman, Eastwood (gift) . . . . .	2
Geological Survey, Trenton . . . . .	2
Newark Museum Association, (gift) . . . . .	1
Newark Public Library . . . . .	1
Princeton University, Princeton . . . . .	2
Stevens Institute of Technology, Hoboken . . . . .	1

## NEW MEXICO

Agricultural Experiment Station, Mesilla Park . . . . .	6
Museum of New Mexico, Santa Fé . . . . .	36

## NEW YORK

Agricultural Experiment Station, Geneva . . . . .	3
American Geographical Society, New York City . . . . .	1
American Institute of Mining Engineers, New York City . . . . .	2
American Museum of Natural History, New York City . . . . .	25
Brooklyn Institute of Arts and Sciences . . . . .	6
Buffalo Public Library . . . . .	1
Buffalo Society of Natural History . . . . .	1
Carnegie Foundation for the Advancement of Teaching, New York City . . . . .	1
Cornell University, Ithaca . . . . .	2
Forestry Quarterly, Ithaca . . . . .	1
General Education Board, New York City (gift) . . . . .	1
Hispanic Society of America, New York City . . . . .	2
Japan Society, New York City (gift) . . . . .	1
Lake Mohonk Conference of International Arbitration, Lake Mohonk . . . . .	1
Metropolitan Museum of Art, New York City . . . . .	6
Munn and Company, New York City (gift) . . . . .	2
National Association of Audubon Societies, New York City . . . . .	6
New York Academy of Sciences, New York City . . . . .	2
New York Botanical Garden, New York City . . . . .	1
Pratt Institute Free Library, Brooklyn . . . . .	2
Public Library, New York City . . . . .	1
State Library, Albany . . . . .	7
Staten Island Association of Arts and Sciences, New York City . . . . .	2
Zoological Society, New York City . . . . .	3



## NORTH CAROLINA

Agricultural Experiment Station, Raleigh . . . . .	2
Elisha Mitchell Scientific Society, Chapel Hill . . . . .	1

## NORTH DAKOTA

State Historical Society, Grand Forks . . . . .	1
University of North Dakota, University . . . . .	1

## OHIO

Agricultural Experiment Station, Wooster . . . . .	30
Chemical Rubber Company, Cleveland (gift) . . . . .	1
Cincinnati Museum Association, Cincinnati . . . . .	2
Cleveland Museum of Art . . . . .	1
Cleveland Public Library . . . . .	2
Denison University, Granville . . . . .	1
Geological Survey, Columbus . . . . .	1
Lloyd Library, Cincinnati . . . . .	2
Marietta College . . . . .	1
Oberlin College . . . . .	1
State Academy of Science, Columbus . . . . .	1
State Archaeological and Historical Society, Columbus . . . . .	1
State University, Columbus . . . . .	18
University of Cincinnati . . . . .	2
Wilson Ornithological Club, Oberlin . . . . .	1

## OKLAHOMA

Geological Survey, Norman . . . . .	4
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## OREGON

Agricultural Experiment Station, Corvallis (gift) . . . . .	6
State Board of Forestry, Salem . . . . .	1
Timberman, Portland (gift) . . . . .	1

## PENNSYLVANIA

Agricultural Experiment Station, Harrisburg . . . . .	5
American Entomological Society, Philadelphia . . . . .	4
American Journal of Pharmacy, Philadelphia . . . . .	1
American Philosophical Society, Philadelphia . . . . .	1
Association of Engineering Societies, Philadelphia . . . . .	2
Bryn Mawr College, Bryn Mawr . . . . .	1
Carnegie Institute, Pittsburgh . . . . .	2
Carnegie Library, Pittsburgh . . . . .	6
Carnegie Museum, Pittsburgh . . . . .	3
Delaware County Institute of Science, Media . . . . .	1
Dropsie College, Philadelphia . . . . .	1
Engineers' Society of Western Pennsylvania, Pittsburgh . . . . .	2
Franklin Institute, Philadelphia . . . . .	2
Pennsylvania Department of Forestry, Harrisburg (gift) . . . . .	1
Pennsylvania Museum and School of Industrial Art, Philadelphia . . . . .	1
Philadelphia Academy of Natural Sciences . . . . .	1
Philadelphia College of Physicians . . . . .	1
Philadelphia Commercial Museum . . . . .	1
Philadelphia Numismatics and Antiquarian Society . . . . .	1
State Department of Agriculture, Harrisburg . . . . .	2

## 52 FIELD MUSEUM OF NATURAL HISTORY — REPORTS, VOL. V.

Topographic and Geologic Survey, Pittsburgh . . . . .	4
United States Indian School, Carlisle . . . . .	2
University of Pennsylvania, Philadelphia . . . . .	6
Wagner Free Institute of Science, Philadelphia . . . . .	1
Wistar Institute of Anatomy and Biology, Philadelphia . . . . .	8
Wyoming Historical and Geological Society, Wilkes-Barre . . . . .	1
PHILIPPINE ISLANDS	
Bureau of Education, Manila . . . . .	3
Department of the Interior, Bureau of Science, Manila . . . . .	4
Philippine Library, Manila . . . . .	1
RHODE ISLAND	
Agricultural Experiment Station, Kingston . . . . .	1
Providence Public Library . . . . .	2
Roger Williams Park Museum, Providence . . . . .	1
SOUTH CAROLINA	
Charleston Museum . . . . .	1
Department of Agriculture, Commerce and Industries, Clemson . . . . .	1
SOUTH DAKOTA	
Agricultural Experiment Station, Brookings . . . . .	7
State Geological and Biological Survey, Vermilion . . . . .	1
TENNESSEE	
Agricultural Experiment Station, Nashville . . . . .	3
TEXAS	
International Society of Archaeologists, Hico (gift) . . . . .	1
Scientific Society, San Antonio . . . . .	10
University of Texas, Austin . . . . .	3
UTAH	
State Horticultural Commission, Salt Lake City . . . . .	1
VERMONT	
Geological Survey, Burlington . . . . .	1
University of Vermont, Burlington . . . . .	6
VIRGINIA	
Agricultural Experiment Station, Blacksburg . . . . .	3
University of Virginia, Charlottesville . . . . .	1
Virginia State Library, Richmond . . . . .	1
WASHINGTON	
State Geological Survey, Olympia . . . . .	2
State Library, Seattle . . . . .	3
WASHINGTON, D. C.	
Biological Society . . . . .	1
International Bureau of American Republics . . . . .	2
National Academy of Sciences . . . . .	3
National Geographic Society . . . . .	2
United States Government . . . . .	.780
WEST VIRGINIA	
Agricultural Experiment Station, Morgantown . . . . .	6
University of West Virginia, Morgantown . . . . .	1

## WISCONSIN

Archaeological Society, Milwaukee . . . . .	1
Beloit College . . . . .	2
Geological and Natural History Survey, Madison . . . . .	4
Natural History Society, Madison . . . . .	1
State Historical Society, Madison. . . . .	2
State Horticultural Society, Madison. . . . .	2
University of Wisconsin, Madison . . . . .	10
Wisconsin Academy of Science, Madison . . . . .	1

## WYOMING

Agricultural Experiment Station, Laramie . . . . .	3
State Board of Horticulture, Laramie . . . . .	1

Atkinson, George F., Ithaca, New York . . . . .	6
Avery, Samuel P., Hartford, Connecticut (gift) . . . . .	1
Ayer, Edward E., Chicago (gift) . . . . .	1
Barnes, William, Decatur, Illinois . . . . .	1
Barrington, D. M., Philadelphia (gift) . . . . .	1
Bean, Tarleton H., Albany, New York . . . . .	1
Brandegge, Townshend S., Berkeley, California . . . . .	1
Branner, J. C., Stanford University, California . . . . .	17
Brimley, C. S., Raleigh, North Carolina (gift) . . . . .	4
Casey, Thomas L., Washington, D. C. (gift) . . . . .	4
Chalmers, W. J., Chicago (gift) . . . . .	5
Cockerell, T. D. A., Boulder, Colorado . . . . .	11
Collins, G. N., Washington, D. C. . . . .	2
Conklin, Edwin Grant, Princeton, New Jersey . . . . .	1
Coutant, A. F., Ithaca, New York (gift) . . . . .	1
Cross, Whitman, Washington, D. C. . . . .	3
Evans, Alexander W., New Haven, Connecticut . . . . .	6
Farrington, Oliver C., Chicago . . . . .	9
Farwell, Oliver A., Detroit, Michigan . . . . .	3
Felt, E. P., Nassau, New York (gift) . . . . .	1
Gay, Frederick P., Berkeley, California (gift) . . . . .	5
Gerhard, William J., Chicago . . . . .	5
Goldman, E. A., Washington, D. C. . . . .	1
Greene, Edward L., Washington, D. C. . . . .	2
Hough, Walter, Washington, D. C. . . . .	1
Hrdlicka, Ales., Washington, D. C. . . . .	1
Hurst, Ethan Allen, Hereford, Texas (gift) . . . . .	1
Kunz, George Frederick, New York City . . . . .	2
Laufer, Berthold, Chicago . . . . .	8
McCormick, Ryerson, Sargent Indian Expedition (gift) . . . . .	6
Meek, Mrs. Seth Eugene, Chicago (gift) . . . . .	1
Merriam, C. Hart, Washington, D. C. . . . .	125
Millspaugh, Charles Frederick, Chicago . . . . .	90
Moorehead, Warren K., Andover, Massachusetts . . . . .	1
Morehouse, George P., Topeka, Kansas (gift) . . . . .	1
Osborn, Henry T., New York City . . . . .	2
Osburn, Herbert, Columbus, Ohio . . . . .	2

Osgood, Willfred H., Chicago . . . . .	1
Parke Davis and Company, Detroit, Michigan . . . . .	1
Penrose, R. A. P., Jr., Philadelphia . . . . .	2
Randall, T. A., Indianapolis, Indiana (gift) . . . . .	1
Robertson, James A., Cleveland, Ohio (gift) . . . . .	1
Schaus, W., Washington, D. C. . . . .	1
Thaxter, Roland, Cambridge, Massachusetts . . . . .	4
Toomey, Noxon, St. Louis, Missouri (gift) . . . . .	2
Walker, J. W., Chicago (gift) . . . . .	2
Warren, Charles H., Boston, Massachusetts . . . . .	1
Willoughby, Charles C., Cambridge, Massachusetts . . . . .	14

## AFRICA

Albany Museum, Grahamstown . . . . .	1
Department of Mines, Pretoria, Transvaal . . . . .	1
Geological Society, Johannesburg . . . . .	3
Geological Survey, Pretoria . . . . .	1
Institut de Carthage, Tunis . . . . .	1
South African Museum, Cape Town . . . . .	2
Transvaal Museum, Pretoria . . . . .	1

## ARGENTINA

Museo Nacional, Buenos Aires . . . . .	2
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## AUSTRALIA

Australian Museum, Sydney . . . . .	3
Australian Ornithologists' Union, Melbourne . . . . .	1
Botanic Gardens and Government Domains, Sydney . . . . .	1
Department of Agriculture, Adelaide . . . . .	1
Department of Agriculture, Hobart, Tasmania . . . . .	1
Department of Agriculture, Melbourne . . . . .	1
Department of Agriculture, Sydney . . . . .	2
Department of Fisheries, Sydney . . . . .	1
Department of Mines, Sydney . . . . .	3
Field Naturalists' Club, Brisbane . . . . .	1
Field Naturalists' Club, Melbourne . . . . .	1
Geological Survey, Perth . . . . .	9
Government of the Commonwealth, Melbourne . . . . .	5
Intelligence and Tourist Bureau, Adelaide . . . . .	1
Linnean Society of New South Wales, Sydney . . . . .	2
Melbourne University . . . . .	1
National Museum, Melbourne . . . . .	1
Natural History and Scientific Society, Perth . . . . .	1
Premier's Office, Perth . . . . .	1
Public Library, Museum and Art Gallery, Adelaide . . . . .	1
Queensland Government, Brisbane (gift) . . . . .	1
Queensland Museum, Brisbane . . . . .	1
Royal Geographical Society of Australasia, Queensland . . . . .	1
Royal Society of New South Wales, Sydney . . . . .	1
Royal Society of Queensland, Brisbane . . . . .	1
Royal Society of South Australia, Adelaide . . . . .	18
Royal Zoological Society of New South Wales, Sydney . . . . .	1

South Australian Ornithological Association, Adelaide . . . . .	I
Technical Museum, Sydney . . . . .	I
Victoria National Museum, Melbourne . . . . .	I
Victorian Government, Melbourne (gift) . . . . .	I
Western Australian Museum and Art Gallery, Perth . . . . .	I
AUSTRIA-HUNGARY	
Magyar Nemzeti Museum, Budapest. . . . .	I
BORNEO	
Sarawak Museum, Sarawak . . . . .	I
BRAZIL	
Campanas Centro de Ciencia, Sao Paulo . . . . .	I
Instituto Agronomico de Estado, Sao Paulo . . . . .	I
Museo Nacional, Rio de Janeiro . . . . .	I
Museu Paulista, Sao Paulo . . . . .	I
BRITISH GUIANA	
Royal Agricultural and Commercial Society, Georgetown . . . . .	I
CANADA	
Commission of Conservation, Ottawa (gift) . . . . .	13
Department of Agriculture, Ottawa . . . . .	14
Department of Agriculture, Regina, Saskatchewan (gift) . . . . .	I
Department of Agriculture, Victoria, British Columbia . . . . .	2
Department of the Interior, Geological Survey, Ottawa . . . . .	32
Department of Lands, Victoria . . . . .	I
Department of Marine and Fisheries, Ottawa . . . . .	2
Department of Mines, British Columbia. . . . .	2
Department of Mines, Ottawa . . . . .	2
Minister of Education, Toronto . . . . .	2
Naturaliste Canadien, Chicoutimi . . . . .	I
Numismatic and Antiquarian Society, Montreal . . . . .	I
Ottawa Field Naturalists' Club, Ottawa . . . . .	I
Provincial Museum, Victoria . . . . .	I
Royal Society, Toronto . . . . .	3
University of Toronto . . . . .	4
CEYLON	
Colombo Museum . . . . .	2
Royal Botanic Garden, Peradeniya . . . . .	2
CHILE	
Biblioteca Nacional, Santiago de Chile . . . . .	4
CHINA	
Botanical and Forestry Department, Hong Kong . . . . .	I
Royal Asiatic Society, North China Branch, Shanghai . . . . .	I
DENMARK	
Botanical Garden, Copenhagen . . . . .	3
Naturhistorisk Forening, Copenhagen . . . . .	I
Société Botanique de Copenhagen . . . . .	I
EGYPT	
Zoölogical Gardens, Cairo . . . . .	I

## ENGLAND

Anthropological Institute of Great Britain and Ireland, London . . . . .	1
Ashmolean Natural History Society of Oxfordshire, Oxford . . . . .	1
Asiatic Society, London . . . . .	1
Brighton and Hove Natural History and Philomophical Society . . . . .	2
Bristol Museum and Art Gallery . . . . .	1
British Association for the Advancement of Science, London . . . . .	1
British Museum (Natural History), London . . . . .	16
Cambridge Antiquarian Society . . . . .	1
Cambridge Philosophical Society . . . . .	2
Cambridge University Library . . . . .	4
City of Sheffield . . . . .	1
Croydon Natural History and Scientific Society . . . . .	1
Dove Marine Laboratory, Cullercoats, Northumberland . . . . .	1
Ealing Scientific and Microscopical Society, London . . . . .	1
Entomological and Natural History Society, London . . . . .	1
Great Britain Geological Survey, London . . . . .	1
Horniman Museum, London . . . . .	2
Hull Municipal Museum, Hull . . . . .	3
Imperial Bureau of Entomology, London . . . . .	2
Imperial College of Science and Technology, London . . . . .	1
Japan Society, London . . . . .	1
Lancashire Sea Fisheries Laboratory, Liverpool . . . . .	1
Linnean Society, London . . . . .	3
Liverpool Biological Society . . . . .	1
Liverpool Geological Society . . . . .	1
Liverpool Marine Biological Station . . . . .	1
London Zoological Society . . . . .	2
Lord Derby Natural History Museum, Liverpool (gift) . . . . .	1
Manchester Field Naturalists' and Archaeologists' Society . . . . .	1
Manchester Museum . . . . .	1
Marine Biological Association of the United Kingdom, Plymouth . . . . .	1
Oxford Delegates of University Museum . . . . .	1
Royal Archaeological Institute of Great Britain and Ireland, London . . . . .	1
Royal Botanic Gardens, Kew . . . . .	2
Royal Colonial Institute, London . . . . .	2
Royal Geographical Society, London . . . . .	3
Royal Horticultural Society, London . . . . .	2
Royal Society, London . . . . .	2
Royal Society of Arts, London . . . . .	2
South London Entomological and Natural History Society, London . . . . .	1
Tring Zoological Museum . . . . .	1

## FRANCE

Académie des Sciences, Paris . . . . .	2
Association des Naturalistes, Levallois-Perret . . . . .	2
Ecole d'Anthropologie, Paris . . . . .	1
Muséum d'Histoire Naturelle et d'Ethnographie, Havre . . . . .	1
Société de Géographie, Toulouse . . . . .	1
Société des Etudes Scientifiques, Angers . . . . .	2
Société des Sciences Naturelles, La Rochelle . . . . .	14

Société des Sciences Naturelles des Saone et Loire, Chalon-sur-Saone . . . . .	2
Société Géologique du Nord, Lille . . . . .	1
Société Linnéenne de Bordeaux, Bordeaux . . . . .	1
Société Nationale d'Agriculture, Paris . . . . .	1
Société Nationale d'Agriculture, Science et Arts, Angers . . . . .	1
Société Nationale d'Horticulture, Paris . . . . .	1
Société Zoologique de France, Paris . . . . .	2

## GERMANY

Botanische Staatsinstitute, Hamburg . . . . .	1
Deutsche Dendrologische Gesellschaft, Bonn-Poppelsdorf . . . . .	1
Deutsche Gesellschaft für Anthropologie, Ethnologie und Urgs., Berlin . . . . .	1
Deutsche Gesellschaft für Volkstümliche Naturkunde, Berlin . . . . .	2
Deutscher Seefischerei-Verein, Berlin . . . . .	1
Deutsches Entomologisches Museum, Berlin . . . . .	1
Gesellschaft für Erdkunde, Leipzig . . . . .	1
Institut für Mineralogie und Petrographie, Leipzig . . . . .	5
Jahres-Verzeichnis der an den Deutschen Univ., Berlin . . . . .	2
K. Bayer. Ludwig-Maximilians-Universität, Munich . . . . .	7
K. Bibliothek, Berlin . . . . .	3
K. Botanischer Garten und Museum, Berlin . . . . .	3
K. Georg-August-Universität, Göttingen . . . . .	2
K. Sachs. Gesellschaft der Wissenschaften, Leipzig . . . . .	1
Universitäts Bibliothek, Kiel . . . . .	1
Verein für Volkskunde, Berlin . . . . .	1

## INDIA

Agri-Horticultural Society, Madras . . . . .	1
Anthropological Society, Bombay . . . . .	1
Archaeological Survey, Burma . . . . .	1
Archaeological Survey, Calcutta . . . . .	23
Archaeological Survey, Peshawar . . . . .	1
Colony of Mauritius, . . . . .	1
Department of Agriculture, Bombay . . . . .	1
Department of Agriculture, Madras . . . . .	2
Department of Agriculture, Pusa . . . . .	3
Geological Survey, Calcutta . . . . .	3
Government Museum, Madras . . . . .	1
Indian Museum, Calcutta . . . . .	7
Map Record and Issue Office, Calcutta (gift) . . . . .	1
National Indian Association, Calcutta (gift) . . . . .	1
Royal Asiatic Society, Straits Branch, Singapore . . . . .	1
Royal Botanic Garden, Calcutta . . . . .	1
Superintendent of Government Printing, Calcutta . . . . .	4

## IRELAND

Department of Agriculture, Fisheries Branch, Dublin . . . . .	2
Royal Dublin Society, Dublin . . . . .	3
Royal Irish Academy, Dublin . . . . .	3
Trinity College, Dublin . . . . .	1

## ITALY

American Society, Rome . . . . .	1
Galleria Sangiorgi, Rome (gift) . . . . .	1

Musei di Zoologia ed Anatomia Comparata, Turin . . . . .	1
R. Scuola Superiore d'Agricoltura, Portici . . . . .	1
Società Geografica Italiana, Rome . . . . .	2
Società Geologia Italiana, Rome . . . . .	1
Società Italiana di Antropologia, Florence . . . . .	1
Società Italiana di Scienze Naturali, Milano . . . . .	1
Società Romana di Antropologia, Rome . . . . .	1
Società Toscana di Scienze Naturali, Pisa . . . . .	1
<b>JAPAN</b>	
Anthropological Society of Tokyo. . . . .	1
Bureau of Productive Industry Formosa Government, Taihoku . . . . .	1
Deutsche Gesellschaft für Natur- und Volkerkunde Ostasiens, Tokyo . . . . .	2
Geological Survey, Tokyo . . . . .	2
Government-General of Chosen, Seoul, Korea . . . . .	1
Imperial University of Tokyo, College of Science, Tokyo . . . . .	2
Tohoku Imperial University, Sendai . . . . .	1
Tokyo Botanical Society, Tokyo . . . . .	1
<b>JAVA</b>	
Bataviaasch Genootschap van Kunsten en Wetenschappen, Batavia. . . . .	4
Department of Agriculture, Buitenzorg . . . . .	10
Encyclopaedisch Bureau, Batavia . . . . .	3
Jardin Botanique, Buitenzorg . . . . .	1
<b>MEXICO</b>	
Sociedad Científica "Antonio Alzate," Mexico . . . . .	1
<b>NETHERLANDS</b>	
K. Instituut Taal-Land en Volkerkunde Nederlandsch-Indie, 'sGravenhage . . . . .	1
Museum voor Land-en Volkerkunde, Rotterdam . . . . .	1
Nederlandsche Dierkundige Vereeniging, Leiden . . . . .	2
Rijks Ethnographisch Museum, Leiden . . . . .	2
Stats Bibliotheek, Haarlem . . . . .	1
<b>NEW ZEALAND</b>	
Acclimatization Society, Wellington . . . . .	1
Auckland Institute and Museum . . . . .	1
Department of Agriculture, Wellington . . . . .	2
Department of Mines, Wellington . . . . .	1
Dominion Museum, Wellington . . . . .	1
Minister of Internal Affairs, Department of Education, Wellington (gift) . . . . .	1
<b>NORWAY</b>	
Bergen Museum . . . . .	3
<b>PERU</b>	
Cuerpo de Ingenieros de Minas, Lima . . . . .	1
<b>PORTUGAL</b>	
Academia Real des Sciencias, Lisbon . . . . .	2
Collegio de S. Fiel, Lisbon . . . . .	2
<b>RUSSIA</b>	
Imperial Botanical Garden, Petrograd . . . . .	1
<b>SCOTLAND</b>	
Dumfriesshire and Galloway Natural History and Antiquarian Society, Dumfries . . . . .	1



Fisheries Board, Edinburgh . . . . .	3
Royal Scottish Museum, Edinburgh . . . . .	1
Zoological Society of Scotland, Edinburgh . . . . .	6

## SPAIN

Museo de Ciencias Naturales, Madrid . . . . .	2
R. Academia de Ciencias, Madrid . . . . .	1
Sociedad Española de Historia Natural, Madrid . . . . .	2

## SWEDEN

K. Biblioteket, Stockholm . . . . .	2
K. Svenska Vetenskapsakademien, Stockholm . . . . .	6
K. Vitt. Hist. och Antik. Akademien, Stockholm . . . . .	2
Lund Universitets-Biblioteket . . . . .	2
Statens Skogsförsökanstalt, Stockholm . . . . .	1
Svenska Sällskapet för Antropologi och Geografi, Stockholm . . . . .	1
Tromsö Museum . . . . .	2
Uppsala University . . . . .	1

## SWITZERLAND

Botanischer Garten, Universität, Zurich . . . . .	2
Conservatoire et Jardin Botaniques, Geneva . . . . .	1
Lausanne University . . . . .	1
Musée d'Histoire Naturelle, Lausanne . . . . .	1
Musée Ethnographique Neuchâtel . . . . .	1
Musée Zoologique, Lausanne . . . . .	1
Naturforschende Gesellschaft, Basel . . . . .	2
Naturforschende Gesellschaft, Bern . . . . .	1
Société des Sciences Naturelles, Fribourg . . . . .	1
Société Helvétique des Sciences Naturelles, Aarau . . . . .	1
Universität Bern . . . . .	10

## URUGUAY

Ministerio de Industrias, Montevideo (gift) . . . . .	1
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## WALES

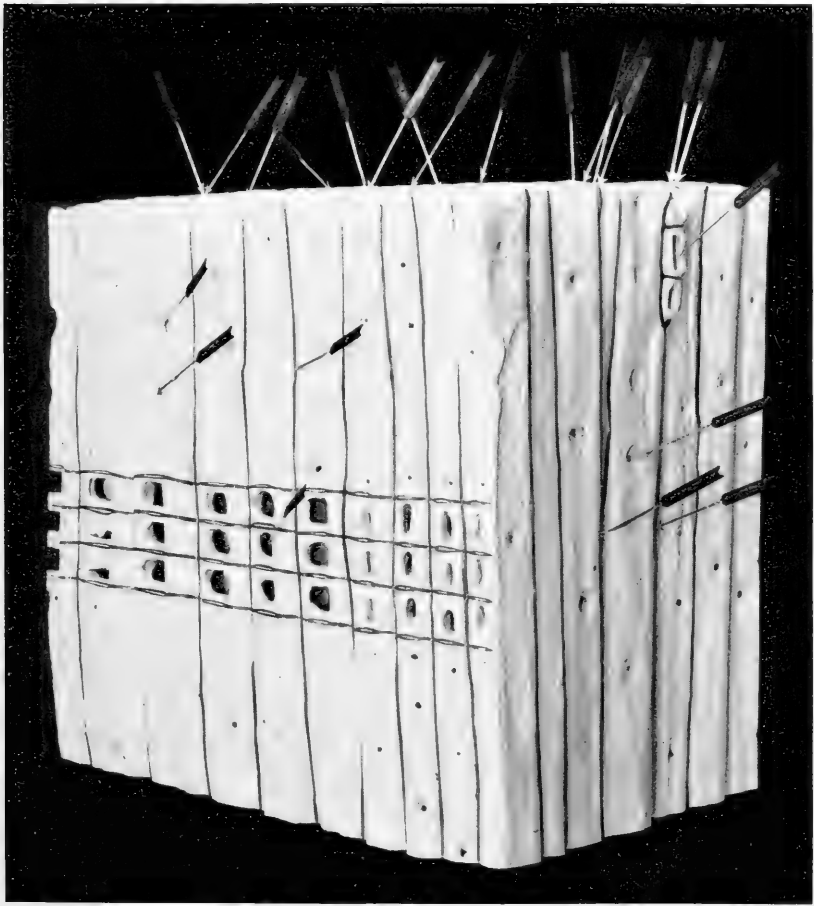
National Museum of Wales, Cardiff . . . . .	1
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## WEST INDIES

Agricultural Experiment Station, Porto Rico . . . . .	1
Biblioteca Nacional, Havana . . . . .	1
Department of Agriculture, Kingston . . . . .	2
Estacion Central Agronomico, Santiago de las Vegas . . . . .	2
Imperial Department of Agriculture, Barbadoes . . . . .	2
Jamaica Institute, Kingston . . . . .	1
Trinidad and Tobago Department of Agriculture, Port of Spain . . . . .	3
Universidad de la Habana, Havana . . . . .	2

Bolton, Herbert, Bristol, England . . . . .	2
Carpenter, G. H., Dublin, Ireland . . . . .	1
DeCandolle, Casimir, Paris, France . . . . .	1
Dieterich, Albert, Leipzig, Germany . . . . .	1
Duncan and Davies, New Plymouth, New Zealand (gift) . . . . .	1
Ewart, A. J., Melbourne, Australia . . . . .	7
Gilchrist, Douglas A., Newcastle-upon-Tyne, England . . . . .	1

Guppy, H. B., Kew, England (gift)	1
Gurney, J. H., Norfolk, England	3
Hartland, E. Sydney, Gloucester, England	1
Lahille, F., Buenos Aires, Argentina	7
Levy-Bruhl, L., Paris, France	2
Marquez, Alberto, Parahyba, Brazil (gift)	1
Niederlein, D. Gustav, Zittau, Germany (gift)	1
Outes, Felix T., Buenos Aires, Argentina	1
Sapir, Edward, Ottawa, Canada	3
Schlagenhaufen, Otto, Zürich, Switzerland	1
Torres, Luis Maria, La Plata, Argentina	2
Tristan, J. F., San José, Costa Rica (gift)	1
Weigel, O., Leipzig, Germany	2
Wille, N., Christiania, Norway	2
Yamawaki, H., Japan (gift)	3
Zimmer, George F., London, England	1



MODEL OF A MAGNIFIED SECTION OF WOOD.

The designating labels are printed upon the feathered portion of arrows that point to the special structural element of the wood referred to.

LIBRARY  
UNIVERSITY OF ILLINOIS  
URBANA

## ARTICLES OF INCORPORATION

## STATE OF ILLINOIS.

DEPARTMENT OF STATE.

WILLIAM H. HINRICHSSEN, *Secretary of State.*

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A. D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached.

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of the State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.

W. H. HINRICHSSEN,

[SEAL.]

*Secretary of State.*

TO HON. WILLIAM H. HINRICHSSEN,

SECRETARY OF STATE:

SIR:

We, the undersigned citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled "An Act Concerning Corporations," approved April 18, 1872, and all acts amendatory thereof; and that for the purposes of such organization we hereby state as follows, to wit:

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."

2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archaeology, Science, and History.

3. The management of the aforesaid Museum shall be vested in a Board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.

4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence:

Ed. E. Ayer, Charles B. Parwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black, and Frank W. Gunsaulus.

5. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

(Signed),

George E. Adams, C. B. Parwell, Sidney C. Eastman, F. W. Putnam, Robert McMurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaat, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel P. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, George F. Bissell, John R. Walsh, Chas. Pitzsimons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, George R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, George M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS }  
COOK COUNTY } ss.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

[SEAL.] G. R. MITCHELL,  
NOTARY PUBLIC, COOK COUNTY, ILL.

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#### CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the Corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26, 1894, in the office of the Secretary of State for Illinois.

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#### CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the Corporate members held the 8th day of November, 1905, the name of the FIELD COLUMBIAN MUSEUM was changed to FIELD MUSEUM OF NATURAL HISTORY. A certificate to this effect was filed November 10, 1905, in the office of the Secretary of State for Illinois.

## AMENDED BY-LAWS.

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(FEBRUARY 10, 1913.)

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## ARTICLE I.

## MEMBERS.

SECTION 1. Members shall be of five classes, Annual Members, Corporate Members, Life Members, Patrons and Honorary Members.

SEC. 2. Annual Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten dollars (\$10.00), payable within thirty days after notice of election, and within thirty days after each recurring annual date. The failure of any person to make such initiatory payment and such annual payments within said time shall, at the option of the Board of Trustees, be sufficient grounds for the forfeiture of an annual membership.

This said annual membership shall entitle the member to:

*First.*— Free admittance for the member and family, to the Museum on any day.

*Second.*— Ten tickets every year, admitting the bearer to the Museum on pay days.

*Third.*— A copy of all publications of the Museum when requested.

*Fourth.*— Invitations to all special exhibits, receptions, lectures, or other functions which may be given at the Museum.

SEC. 3. The Corporate Members shall consist of the persons named in the articles of incorporation, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such persons named in the articles of incorporation shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as Corporate Members shall, within ninety days of their election, pay into the treasury the sum of twenty dollars (\$20.00) or more. The failure of any person to make such payment within said time shall, at the option of the Board of Trustees, be ground for forfeiture of his corporate membership. Corporate Members becoming Life Members, Patrons or Honorary Members shall be exempt from dues. Annual meetings of said Corporate Members shall be held at the same place and on the same day that the annual meeting of the Board of Trustees is held.

SEC. 4. Any person paying into the treasury the sum of five hundred dollars (\$500.00), at any one time, shall, upon the unanimous vote of the Board, become a Life Member. Life Members shall be exempt from all dues.

SEC. 5. Patrons shall be chosen by the Board upon recommendation of the Executive Committee from among persons who have rendered eminent service to the Museum. They shall be exempt from all dues, and, by virtue of their election as Patrons, shall also be Corporate Members.

SEC. 6. Honorary Members shall be chosen by the Board from among persons who have rendered eminent service to science, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues.

## ARTICLE II.

### BOARD OF TRUSTEES.

SECTION 1. The Board of Trustees shall consist of fifteen members. The respective members of the Board now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled at a regular meeting of the Board, upon the nomination of the Executive Committee made at a preceding regular meeting, by a majority vote of the members of the Board present.

SEC. 2. Regular meetings of the Board shall be held on the second Monday of each month. Special meetings may be called at any time by the President, and shall be called by the Secretary upon the written request of three Trustees. Five Trustees shall constitute a quorum, except for the election of officers or the adoption of the Annual Budget, when seven Trustees shall be required, but meetings may be adjourned by any less number from day to day, or to a day fixed, previous to the next regular meeting.

SEC. 3. Reasonable written notice, designating the time and place of holding meetings, shall be given by the Secretary.

## ARTICLE III.

### HONORARY TRUSTEES.

SECTION 1. As a mark of respect, and in appreciation of services performed for the Institution, those Trustees who by reason of inability, on account of change of residence, or for other cause, or from indisposition to serve longer in such capacity, shall resign their place upon the Board, may be elected, by a majority of those present at any regular meeting of the Board, an Honorary Trustee for life. Such Honorary Trustee will receive notice of all meetings of the Board of Trustees, whether regular or special, and will be expected to be present at all such meetings and participate in the deliberations thereof, but an Honorary Trustee shall not have the right to vote.

## ARTICLE IV.

### OFFICERS.

SECTION 1. The officers shall be a President, a First Vice-President, a Second Vice-President, a Secretary, an Assistant Secretary, and a Treasurer. They shall be chosen by ballot by the Board of Trustees, a majority of those present and voting being necessary to elect. The President, the First Vice-President, and the Second Vice-President shall be chosen from among the members of the Board of Trustees. The meeting for the election of officers shall be held on the second Monday of January of each year, and shall be called the Annual Meeting.

SEC. 2. The officers shall hold office for one year, or until their successors are elected and qualified, but any officer may be removed at any regular meeting of the Board of Trustees by a vote of two-thirds of all the members of the Board. Vacancies in any office may be filled by the Board at any meeting.

SEC. 3. The officers shall perform such duties as ordinarily appertain to their respective offices, and such as shall be prescribed by the By-Laws, or designated from time to time by the Board of Trustees.



## ARTICLE V.

## THE TREASURER.

SECTION 1. The Treasurer shall be custodian of the funds of the Corporation, except as hereinafter provided. He shall make disbursements only upon warrants drawn by the Director and countersigned by the President. In the absence or inability of the Director, warrants may be signed by the Chairman of the Finance Committee, and in the absence or inability of the President, may be countersigned by one of the Vice-Presidents. But no warrants shall be issued, except in conformity with a regularly prepared voucher, giving the name of the payee and stating the occasion for the expenditure, and verified and approved as hereinafter prescribed. It shall be no part of the duties of the Treasurer to see that the warrants have been issued in conformity with such vouchers.

SEC. 2. The securities and muniments of title belonging to the corporation shall be placed in the custody of some Trust Company of Chicago to be designated by the Board of Trustees, which Trust Company shall collect the income and principal of said securities as the same become due, and pay same to the Treasurer, except as hereinafter provided. Said Trust Company shall allow access to and deliver any or all securities or muniments of title to the joint order of the following officers, namely: The President or one of the Vice-Presidents, jointly with the Chairman, or one of the Vice-Chairmen, of the Finance Committee of the Museum.

SEC. 3. The Treasurer shall give bond in such amount, and with such sureties, as shall be approved by the Board of Trustees.

SEC. 4. All vouchers executed for the payment of liabilities incurred in the administration of the Museum, shall be verified by the Auditor, and approved for payment by the Director, and the Chairman of the Administration Committee. All vouchers executed for expenditures for the construction or reconstruction of the Museum building, or buildings, shall be verified by the Auditor and approved for payment by the Chairman of the Building Committee. All vouchers executed in connection with the investments of the Corporation, or in any way having to do with the endowment funds of the Corporation, shall be verified by the Auditor and approved for payment by the Chairman of the Finance Committee.

SEC. 5. The Harris Trust and Savings Bank of Chicago shall be Custodian of "The N. W. Harris Public School Extension of Field Museum" fund. The Bank shall make disbursements only upon warrants drawn by the Curator of "The N. W. Harris Public School Extension of Field Museum of Natural History" and countersigned by the Auditor of Field Museum of Natural History. In the absence or inability of the said officers, warrants may be signed by such officers as shall be authorized by special resolution of the Board of Trustees of Field Museum of Natural History. But no warrant shall be issued, except in conformity with a regularly prepared voucher, giving the name of the payee and stating the occasion for the expenditure, and verified and approved by the officers above designated. It shall be no part of the duties of the Bank to see that the warrants have been issued in conformity with such vouchers.

## ARTICLE VI.

## THE DIRECTOR.

SECTION 1. The Board of Trustees shall elect a Director of the Museum, who shall remain in office until his successor shall be elected. He shall have immediate charge and supervision of the Museum, and shall control the operations of the insti-

tution, subject to the authority of the Board of Trustees and its Committees. The Director shall be the official medium of communication between the Board, or its Committees, and the scientific staff and maintenance force.

SEC. 2. There shall be four scientific departments of the Museum — Anthropology, Botany, Geology, and Zoology, each under the charge of a Curator, subject to the authority of the Director. The Curators shall be appointed by the Board upon the recommendation of the Director, and shall serve during the pleasure of the Board. Subordinate staff officers in the scientific departments shall be appointed and removed by the Director upon the recommendation of the Curators of the respective Departments. The Director shall have authority to employ and remove all other employees of the Museum.

SEC. 3. The Director shall make report to the Board at each regular meeting, recounting the operations of the Museum for the previous month. At the Annual Meeting, the Director shall make an Annual Report, reviewing the work of the Museum for the previous year, which Annual Report shall be published in pamphlet form for the information of the Trustees and Members, and for free distribution in such number as the Board may direct.

## ARTICLE VII.

### AUDITOR.

SECTION 1. The Board shall appoint an Auditor, who shall hold his office during the pleasure of the Board. He shall keep proper books of account, setting forth the financial condition and transactions of the Corporation, and of the Museum, and report thereon at each regular meeting, and at such other times as may be required by the Board. He shall certify to the correctness of all vouchers for the expenditure of the money of the corporation.

## ARTICLE VIII.

### COMMITTEES.

SECTION 1. There shall be five Committees as follows: Finance, Building, Auditing, Administration, and Executive.

SEC. 2. The Finance and Auditing Committees shall each consist of three members, and the Building and Administration Committees shall each consist of five members. All members of these four Committees shall be elected by ballot by the Board at the Annual Meeting, and shall hold office for one year, and until their successors are elected and qualified. In electing the members of these Committees, the Board shall designate the Chairman and Vice-Chairman by the order in which the members are named in the respective Committee; the first member named shall be Chairman, the second named the Vice-Chairman, and the third named, Second Vice-Chairman, succession to the Chairmanship being in this order in the event of the absence or disability of the Chairman.

SEC. 3. The Executive Committee shall consist of the President of the Board the Chairman of the Finance Committee, the Chairman of the Building Committee, the Chairman of the Administration Committee, the Chairman of the Auditing Committee, and two other members of the Board to be elected by ballot at the Annual Meeting.

SEC. 4. Four members shall constitute a quorum of the Executive Committee; three members shall constitute a quorum of the Administration Committee, and in all other standing Committees, two members shall constitute a quorum. In the

event that, owing to the absence or inability of members, a quorum of the regularly elected members cannot be present at any meeting of any Committee, then the Chairman thereof, or his successor, as herein provided, may summon any member of the Board of Trustees to act in place of the absentee.

SEC. 5. The Finance Committee shall have supervision of investing the endowment and other permanent funds of the Corporation, and the care of such real estate as may become its property. It shall have authority to invest, sell, and reinvest funds, subject to the approval of the Board.

SEC. 6. The Building Committee shall have supervision of the construction, reconstruction, and extension of any and all buildings used for Museum purposes.

SEC. 7. The Executive Committee shall be called together from time to time as the Chairman may consider necessary, or as he may be requested to do by three members of the Committee, to act upon such matters affecting the administration of the Museum as cannot await consideration at the Regular Monthly Meetings of the Board of Trustees. It shall, before the beginning of each fiscal year, prepare and submit to the Board an itemized Budget, setting forth the probable receipts from all sources for the ensuing year, and make recommendations as to the expenditures which should be made for routine maintenance and fixed charges. Upon the adoption of the Budget by the Board, the respective Committees shall be considered as authorized to make the expenditures detailed therein. No increase in the expenditures under any items of the Budget shall be made, except by authority of the Board of Trustees, but the Executive Committee shall have authority, in cases of emergency, to expend a further total sum not exceeding two thousand dollars in any one month.

SEC. 8. The Administration Committee shall have general supervision of the affairs of the Museum. The Committee shall hold one meeting each month with the Director at the Museum within a week preceding each Monthly Meeting of the Board of Trustees.

SEC. 9. The Auditing Committee shall have supervision over all accounting and bookkeeping, and full control of the financial records. It shall cause the same, once each year, or oftener, to be examined by an expert individual or firm, and shall transmit the report of such expert individual or firm to the Board at the next ensuing regular meeting after such examination shall have taken place.

SEC. 10. The Chairman of each Committee shall report the acts and proceedings thereof at the next ensuing regular meeting of the Board.

SEC. 11. The President shall be ex-officio a member of all Committees and Chairman of the Executive Committee. Vacancies occurring in any Committee may be filled by ballot at any regular meeting of the Board.

## ARTICLE IX.

### NOMINATING COMMITTEE.

SECTION 1. At the November meeting of the Board, each year a Nominating Committee of three shall be chosen by lot. Said Committee shall make nominations for membership of the Finance Committee, the Building Committee, the Administration Committee, and the Auditing Committee, and for two members of the Executive Committee, from among the Trustees, to be submitted at the ensuing December meeting and voted upon at the following Annual Meeting in January.

## ARTICLE X.

SECTION 1. Whenever the word "Museum" is employed in the By-Laws of the Corporation, it shall be taken to mean the building in which the Museum as an Institution is located and operated, the material exhibited, the material in study collections, or in storage, furniture, fixtures, cases, tools, records, books, and all appurtenances of the Institution, and the workings, researches, installations, expenditures, field work, laboratories, library publications, lecture courses, and all scientific and maintenance activities.

SEC. 2. These By-Laws may be amended at any regular meeting of the Board of Trustees by a two-thirds vote of all the members present, provided the amendment shall have been proposed at a preceding regular meeting.



GROUP OF SCREAMERS. *Palamedia cornuta* AND *Chauna chauraria* AND SCARLET IBIS *Guara rubra*.  
Scene, Lake Maracaibo, Venezuela, S. A.



## HONORARY MEMBERS.

EDWARD E. AYER  
HARLOW N. HIGINBOTHAM  
CHARLES B. CORY

STANLEY McCORMICK  
MRS. TIMOTHY B. BLACKSTONE  
NORMAN W. HARRIS

## DECEASED.

ROBERT F. CUMMINGS  
GEORGE M. PULLMAN  
MARY D. STURGES

---

PATRONS.

ALLISON V. ARMOUR  
EDWARD B. BUTLER  
ALBERT M. COLLINS  
LEE GARNET DAY  
ERNEST R. GRAHAM  
NORMAN W. HARRIS  
CHARLES L. HUTCHINSON

VERNON SHAW KENNEDY  
GEORGE MANIERRE  
CHARLES H. MARKHAM  
JOHN S. MILLER  
JOHN BARTON PAYNE  
FREDERICK J. V. SKIFF  
WILLARD A. SMITH

## DECEASED.

DANIEL H. BURNHAM  
JOSEPH N. FIELD

FREDERICK W. PUTNAM  
WILLIAM I. BUCHANAN  
EDWIN WALKER

# CORPORATE MEMBERS.

ADAMS, GEORGE E.  
ALDIS, OWEN F.  
ARMOUR, ALLISON V.  
AYER, EDWARD E.

BARTLETT, A. C.  
BLACK, JOHN C.  
BLAIR, WATSON F.  
BUTLER, EDWARD B.

CHALMERS, W. J.  
CHATFIELD-TAYLOR, H. C.  
CLARK, JOHN M.  
COLLINS, ALBERT M.  
CRANE, RICHARD T.

DAY, LEE GARNET

EASTMAN, SIDNEY C.  
ELLSWORTH, JAMES W.

FIELD, MARSHALL III  
FIELD, STANLEY

GAGE, LYMAN J.  
GETTY, HENRY H.  
GRAHAM, ERNEST R.  
GUNSAULUS, FRANK W.  
GUNTHER, C. F.

HARRIS, NORMAN W.  
HIGINBOTHAM, H. N.  
HUTCHINSON, CHARLES L.

JONES, ARTHUR B.

KEEP, CHAUNCEY

KENNEDY, VERNON SHAW  
KOHLSAAT, HERMAN H.

LATHROP, BRYAN

McCORMICK, CYRUS H.  
MARKHAM, CHARLES H.  
MANIERRE, GEORGE  
MILLER, JOHN S.  
MITCHELL, JOHN J.

PAYNE, JOHN BARTON  
PECK, FERD. W.  
PORTER, GEORGE F.

RYERSON, MARTIN A.

SKIFF, FREDERICK J. V.  
SMITH, WILLARD A.  
SPRAGUE, A. A., 2ND.  
STONE, MELVILLE E.

---

# DECEASED.

ARMOUR, PHILIP D.  
BAKER, WILLIAM T.  
BISSEL, GEORGE F.  
BLATCHFORD, E. W.  
BUCHANAN, W. I.  
BUCKINGHAM, EBENEZER  
BURNHAM, DANIEL H.  
CRAWFORD, ANDREW  
CURTIS, WILLIAM E.  
DAVIS, GEORGE R.  
FIELD, JOSEPH N.

FITZSIMONS, CHARLES  
HALE, WILLIAM E.  
HARPER, WILLIAM R.  
HATCH, AZEL F.  
HEAD, FRANKLIN H.  
JACKSON, HUNTINGTON W.  
LEITER, L. Z.  
McCAGG, E. B.  
McCLURG, A. C.  
McNALLY, ANDREW  
PATTERSON, ROBERT W.



PEARCE, J. IRVING  
PETERSON, ANDREW  
PULLMAN, GEORGE M.  
PUTNAM, FREDERICK W.  
REAM, NORMAN B.  
SCHNEIDER, GEORGE  
SCOTT, JAMES W.

SMITH, BYRON L.  
SPRAGUE, A. A.  
STOCKTON, JOSEPH  
WALKER, EDWIN  
WALLER, R. A.  
WALSH, JOHN R.  
WILLIAMS, NORMAN

## LIFE MEMBERS.

ADAMS, GEORGE E.  
ALDIS, OWEN F.

BARRETT, MRS. A. D.  
BARRETT, ROBERT L.  
BARTLETT, A. C.  
BLACKSTONE, MRS. TIMOTHY B.  
BLAINE, MRS. EMMONS  
BLAIR, CHAUNCEY J.  
BLAIR, HENRY A.  
BLAIR, WATSON F.  
BOOTH, W. VERNON  
BUTLER, EDWARD B.  
BYLLESBY, H. M.

CARTON, L. A.  
CHALMERS, WILLIAM J.  
CRANE, CHARLES RICHARD  
CRANE, RICHARD T.  
CUMMINGS, D. MARK

DEERING, CHARLES  
DELANO, FREDERIC A.  
DICK, ALBERT BLAKE  
DRAKE, TRACY C.

FARWELL, WALTER  
FAY, C. N.  
FIELD, STANLEY  
FRANTZIUS, FRITZ VON  
FULLER, WILLIAM A.

GARTZ, A. F.  
GRISCOM, CLEMENT A.  
GROMMES, JOHN B.

HAMILL, ERNEST A.  
HILL, LOUIS W.  
HOROWITZ, L. J.  
HOXIE, MRS. JOHN A.  
HUGHITT, MARVIN  
HUTCHINSON, C. L.

ISHAM, MRS. KATHERINE  
PORTER.

JOHNSON, FRANK S.  
JOHNSON, MRS. ELIZABETH AYER  
JONES, ARTHUR B.

KEEP, CHAUNCEY  
KING, FRANCIS  
KING, JAMES C.  
KIRK, WALTER RADCLIFFE

LAWSON, VICTOR F.

MCCORMICK, MRS.  
MCCORMICK, CYRUS H.  
MCCORMICK, HAROLD F.  
MACVEAGH, FRANKLIN  
MASON, WILLIAM S.  
MITCHELL, J. J.

NEWELL, A. B.

ORR, ROBERT M.

PAM, MAX  
PATTEN, HENRY J.  
PIKE, EUGENE S.  
PORTER, GEORGE F.  
PORTER, H. H.

REAM, MRS. CAROLINE P.  
REVELL, ALEX. H.  
ROSENWALD, JULIUS  
RUSSELL, EDMUND A.  
RYERSON, MRS. CARRIE H.  
RYERSON, MARTIN A.

SMITH, ORSON  
SPRAGUE, A. A. 2D.  
STURGES, GEORGE

THORNE, GEORGE R.

WILLARD, ALONZO J.

## ANNUAL MEMBERS.

ADAMS, CYRUS H.  
ADAMS, MILWARD  
ALLERTON, ROBERT H.  
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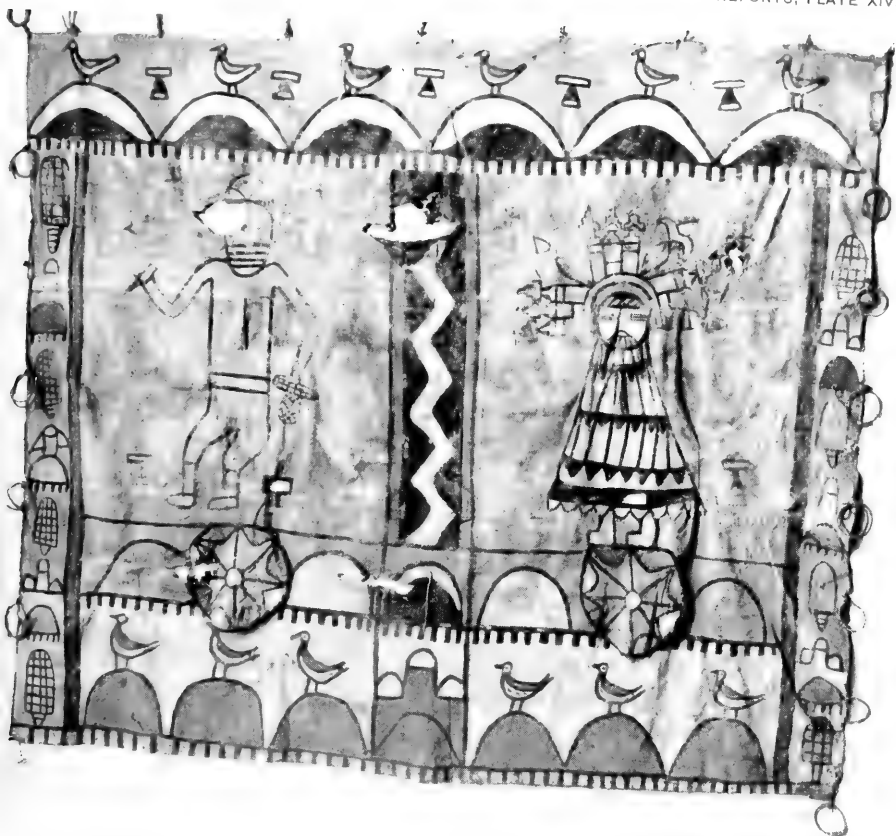
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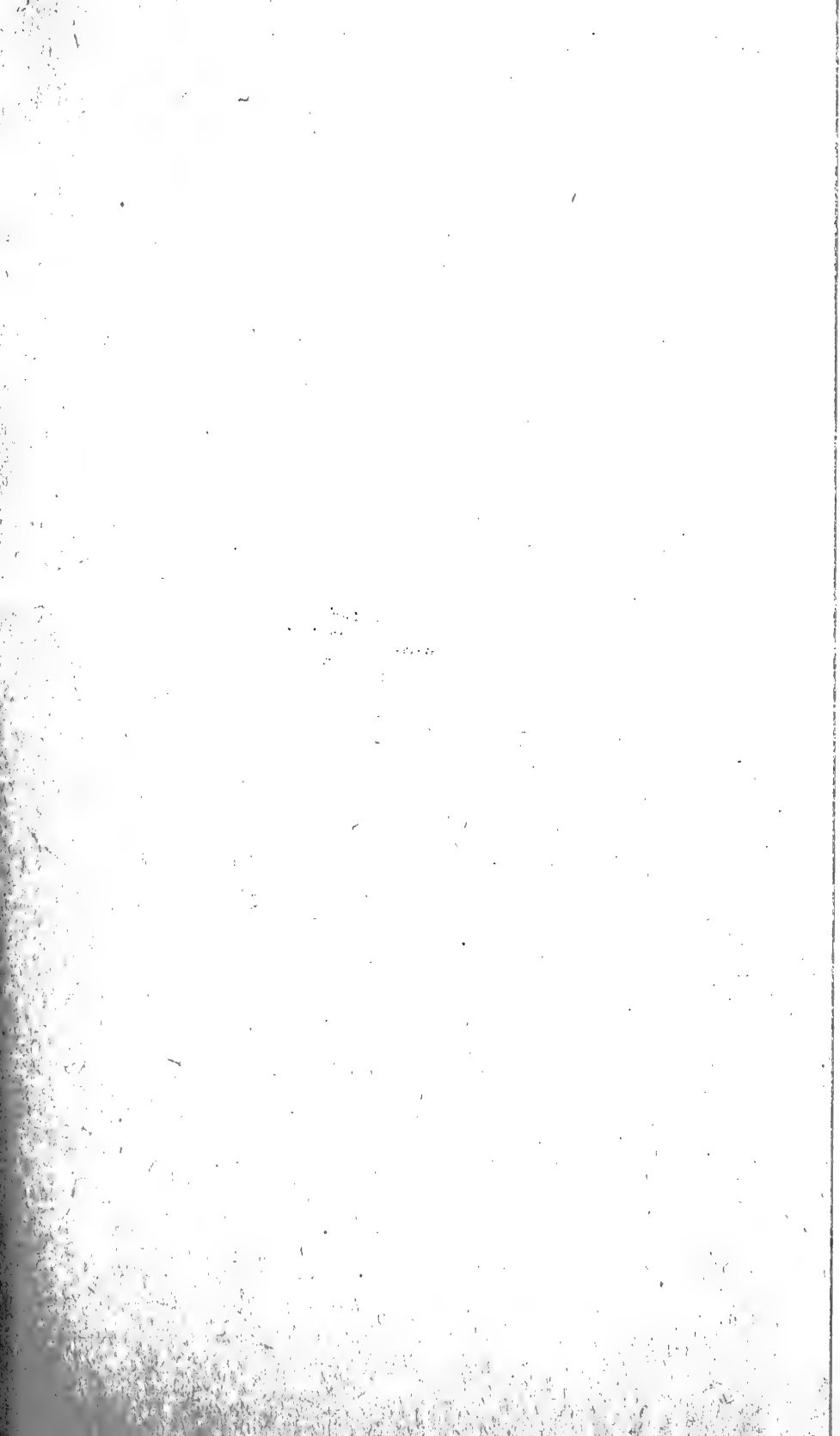
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